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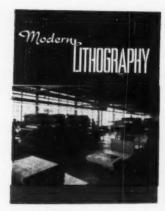
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THOMAS MORGAN Business Manager

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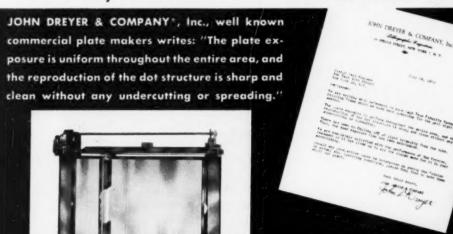
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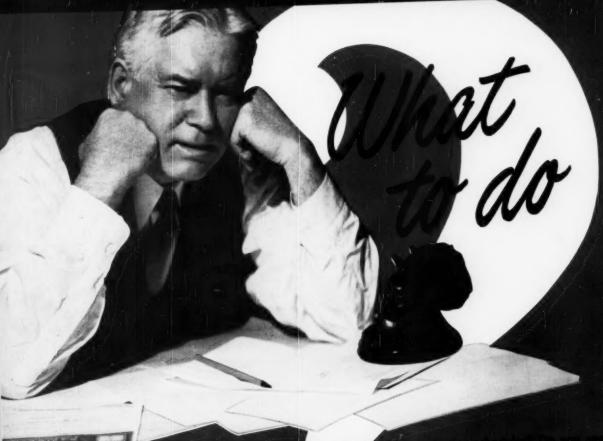
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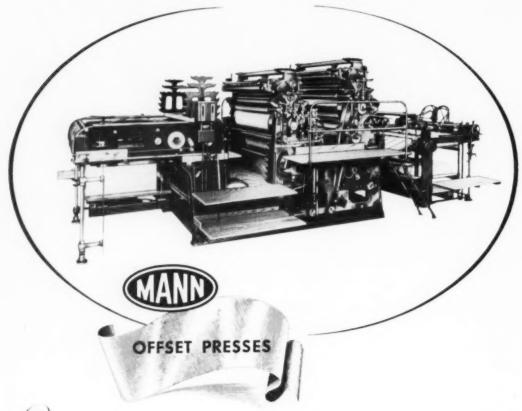
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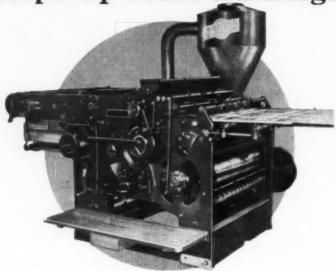
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Most of us just take good things for granted and pass no comment on them.

After nearly 15 years as a member of the National Association of Photo-Lithographers, I do appreciate the value of our membership in the Association. The bulletins have been of the greatest help to all in our organization. We have used many fine ideas in these bulletins to improve the quality of our work, and to save time and money in production helps.

The prompt reporting of union contracts in other cities has been a great guide in our activities.

The many times we have asked for special advice and help you and your staff have co-operated 100%.

And, above all, our membership in the Photo-Lithographers Association has enabled us to meet many of the members of our industry throughout the United States. Through this opportunity we have made many friends, and friendship is something which cannot be counted in dollars and cents.

I just wanted you to know our feelings, and as long as we are in the business we will always keep our membership in the National Association of Photo-Lithographers.

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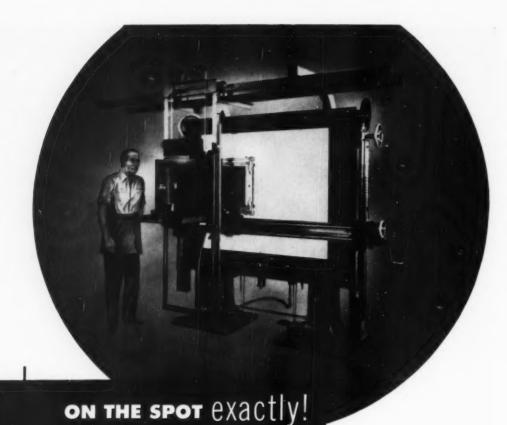
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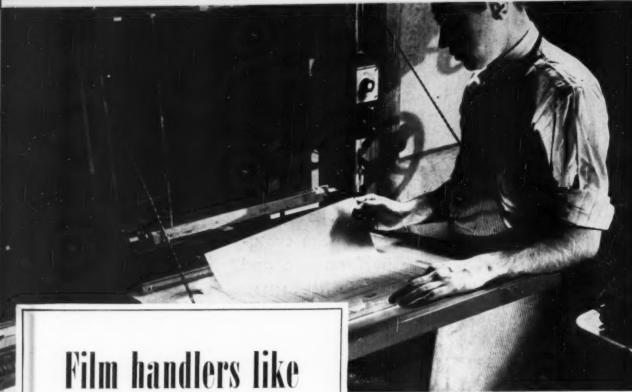
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EDITORIALS

ROFIT margins, although satisfactory among many aggressive lithographing concerns, are reported hovering around the danger point for other units in the field. In a recent conversation with an individual who has access to profit figures of a number of old, well-established and respected lithographic companies, it came as quite a shock to us to learn that, while their volume of business has held up quite satisfactorily in the postwar period, their net profits have not been at all what they should be. It was indicated that a number of concerns are netting only in the neighborhood of three or four percent,—definitely in the danger area.

While this is a reflection, to some degree at least, of greatly increased costs of labor, equipment and supplies, it also indicates other possible causes. Selling prices perhaps have not advanced in proportion to rising costs of production. Resistance among printing buyers to rising selling prices of lithography in the last few years has been tough, and demands for quality have increased. Unless a company has an effective cost system, geared to today's figures, instead of yesterday's, it is not possible to set selling prices which will assure a reasonable profit margin.

During the war, of course, anyone could sell most any kind of lithography at most any kind of price. Since then, many companies perhaps have failed to get in step with the need for agressive selling as well as the need for streamlining production methods to compensate for rising costs. Methods and equipment in use 15 years ago are inadequate to meet the competition of new equipment and enlightened production procedures and controls.

In the uncertainties of these days, a subnormal profit margin places a company on thin ice. A slight percentage change could cause a plunge. The profits which look high in today's highly inflated economy should be studied carefully, and analyzed in the light of their percentage relationship to total sales, rather than considered as so many dollars. Today's profits based on the 1930 dollar, can look fabulous, but can be dangerously close to the break-even point. THE emergency contols, which were so familiar during World War II, are looming on the horizon again, with the stepped up mobilization program. Aluminum already is on the critical list, with controls in sight. As the war program is speeded up, which can of course be expected now that elections are past, more and more materials will be drawn into the hungry war machine. Lithographers already are having difficulty in obtaining paper, film and some other supplies. While many blame these shortages on panic buying, past experience of maintaing a war economy indicate that shortages may be with us for some time.

For the administration of the inevitable war controls, there may be much to be said for the utilization of existing government agencies, but there are some factors involved which don't look good. True, not many want to see the return of WPB, OPA, the War Manpower agency, etc., but when controls are placed in the hands of permanent federal agencies, when and where will their life-and-death authority end? The feeling among business leaders is that once this type of legislation is passed, it could endure a long, long time.

These are not temporary agencies as in World War II, to be disbanded when the emergency is over. Authority now is vested in such departments as the Department of Commerce for allocations of strategic materials, and the Department of Labor, for manpower controls. How long the controls may be with us remains a matter of conjecture, but some of the most levelheaded leaders in industry are predicting a minimum of ten years, with the possibilty of a longer period.

This latest development in Washington has brought some deeply serious thoughts to the minds of many business men. Are we ourselves, while we fight communism in foreign lands at the cost of the lives of many of our sons, falling into the very trap which put communism into the saddle in Europe—the creation of an all-powerful central government dictating every daily detail in the lives of the people?

TAY Succeeds MALLET as NAPL President Via rense of subjects beliefer of our servention mobilization, discussed of Poshington convention

Subjects ranging from management of litho plants to finding better ways of making a half-tone were covered by the many speakers and discussions which featured the 18th annual convention of the National Association of Photo-lithographers. The sessions, held at the Shoreham Hotel, Washington, D. C. opened Wednesday, Oct. 25 and ran through Saturday, October 28, Registration was about 700.

Also of primary interest, as in past years, was the display by some 42 supply and equipment companies of their products. Only one offset press was displayed this year, the new Babcock Talisman, and other heavy equipment was not as prominent in exhibits because of the extensive displays which most of the firms had at the September Chicago Graphic Arts Exposition. It was an off-year for general attendance too, with registration falling below the records of recent years. This too was attributed to the fact that many industry men had attended the Chicago exposition which closed only a month before,

A. J. Fay, vice president and sales director of National Process Co., Clifton, N. J., was elected president of the NAPL, succeeding Charles E. Mallet, Rand Avery-Gordon Taylor, Inc., Boston, who had served in the post for three years. Walter E. Soderstrom continues as executive vice president, and Penn R. Watson, Win, J. Keller,

Inc., Buffalo, was re-elected treasurer,

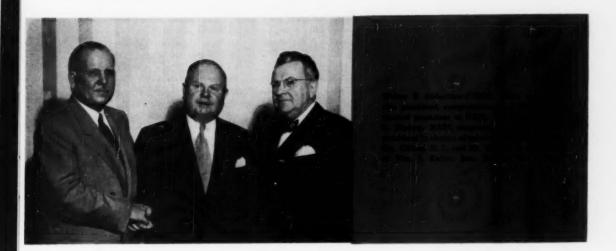
New directors elected during the convention were: Arthur T. Howard, A. T. Howard Co., Boston; G. R. Hoover, Jos. Hoover & Sons Co., Inc., Philadelphia; William Glover, Sweeney Lithograph Co., Belleville, N. J.; Angelo Pustorino, Daniel Murphy & Co., New York; A. L. Tucker, Sauls Lithograph Co., Washington, D. C.; Merle S. Schaff, Dando Schaff Printing & Publishing Co., Philadelphia; Don H. Black, Western Printing & Litho. Co., Racine, Wisc.; Richard H. Grant, Reynolds & Reynolds Co., Dayton, and Mr. Fay and Mr. Watson.

The annual banquet was held Saturday evening with an attendance of about 500. Following dinner, a program of entertainment, music and dancing concluded the four days of activities.

The first session was opened by Charles E. Mallet retiring president of the association, Mr. Mallet, who is in charge of the office division, Rand Avery-Gordon Taylor, Inc., Boston, took as his subject, "Planning for the Days Ahead," and laid down the premise that whether the days ahead bring peace or war, we must plan for them. He urged a study of management practices in the light of a company's balance sheet over a period of years. "Whether a lithographic plant be large or small, of the corporate type or privately owned, whether its major activity be selling or production, its problems are accountable to the fundamentals of management," he said. "Every business should have before it constantly a predetermined basic plan: (1) So much business, (2) so much expense, and, (3) so

BOARD OF DIRECTORS OF THE NAPL. Sitting (L. to R.)—G. R. Hoover, Arthur T. Howard, William Glover, Angelo Pustorino, Penn R. Watson, A. J. Fay, Walter E. Soder strom, Charles E. Mallet, E. Ames Hillperts (NAPL Cost Accountant). Standing (L. to R.)—Harry Brinkman, Paul A. Heideke, Edward Gate.

ly (representing Richard Knight),
Don H Black, I Tom Morgan,
David Safran, A L Tucker, Frank
Myers, Victor Friedman, Walter
Horn, B S Rosenstadt, Richard H.
Grant, S Sears (representing Ernest
Jones), Rex G Howard, Merle &
Schaft, Other board members were
not present for this photograph.



much profit. These figures should be derived as a result of a thorough going analysis of operating costs and market conditions, and they must be rooted in experience," he stated. In conclusion, Mr. Mallet declared that the maintenance of profits in our industry, in his opinion, is purely a question of sound management.

Improved Halttones

David O. Johnson, Eastman Kodak Co., Rochester N. Y., during the afternoon of the first day, discussed Improved Halftones with Kodak Contact Screens, and also introduced two new color products and discussed their reproduction by lithography. With contact screens, Mr. Johnson said that a recently developed method uses a flash exposure to control the

tone scale of the reproduction. In this method a regular exposure is made with white light with a Magenta contact screen. This is followed by an all-yellow-light flash exposure through the screen. This has been found to bring about better range of tone reproduction, and he explained why it works this way with the aid of illustrated pamphlets distributed to the audience.

Mr. Johnson also discussed the reproduction of the new Kodak Ektacolor film and Ektacolor print film, which provide lithographers with "premasked" copy, which does not require much hand correction. The film, a negative color transparency, has been on the market for a year, but the print film is new, and provides a method of making positive color transparencies from the negative film. He showed a number of colored projection slides to illustrate the various steps.

Costs and Standards

E. Ames Hilperts, C.P.A., and cost specialist of the NAPL staff, declared that if the lithographic industry is to progress accounting-wise as it has progressed technologically, it must take action along the line of these main points:

- Standard or budgeted hourly cost rates should be prepared for each cost center in each plant.
- These budgeted hourly cost rates should be used by the estimating department in determining the charges to be made for each job.
- The budgeted hourly cost rates should be revised periodically.





4. They should be compared with the actual hourly cost rates and revisions effected if usage of the rates results in an under-recovery or abnormal over-recovery of costs.

Production standards should be established for various operations in every cost center.

The best operating method available should be selected, including standardization of all surrounding conditions that influence the effectiveness with which the worker performs his task.

 Direct labor standards, once they are true standards, should be determined on the basis of time and motion studies, average of past performance or advance estimates.

Mr. Hilperts said that these recommendations stem from the need of an industry progressive in many ways but strangely reticent about embracing the tools of management which will create better managed plants, greater employee efficiency, greater production, greater employee security through better control of costs, and consequently greater return to both labor and management. Budgeted hourly cost rates and production standards should be recognized for what they are-managerial tools to be used for the present good and future well being of the lithographic industry.

Quality Production

"Help your customers to learn what good copy is," was the recommendation of J. Tom Morgan, Jr., president of the Litho-Krome Co., Columbus, Ga., who discussed quality. Mr. Morgan, whose litho-

I. Retiring NAPL president Charles E. Mallet Exec VP Walter E. Soderstrom, and LTF president Harry E. Brinkman, also an NAPL past-president 2 Lee Rosenstadt, Ardiee Service, N. Y. Penn R. Watson, Wm. J. Keller, Inc. Buffalo, and Richard H. Grant, Reynolds & Reynolds Co. Dayton. 3 Frank A. Myers. Copilyer Litho Corp. Cleveland with M. H. Bruno, LTF research manager. 4 David Salran, Salran Printing Co., Detroit, J. B. Smith, Jr. Photo Reproduction Corp., N. Y.; and Mr. Soderstrom. 5, Jack C. Heath, and Daniel J. Terra, both of Lawier Chemicals, Inc., Chicago. 6. Edward Reed, Jr., Rutherford Machinery Co., Larry Brehm, Western Printing & Litho., Racine, Wis.; Gil Stratton, Fuchs & Lang Mitg. Co. Robert Loveland, Rutherford (in rear); and Elmer G. Voigt, Western Printing & Litho.

graphic reproductions have brought widespread attention, reminded the NAPL audience that the buyer, not the lithographer, generally has control over one of the most important phases of the process—the preparation of copy. The many points in the litho process at which methods can vary and change the results, were pointed out by Mr. Morgan with the aid of a large chart. These variables, he said, were analyzed step by step over many years in his plant, and precise controls were developed to assure uniform processing. He urged careful controls all the way as the only way to achieve quality in such a highly scientific process.

He displayed a number of large sheets of four-color process work, some of it produced in Detroit from separations made in the laboratory at Columbus, Ga.

Solving Problems

A. S. Ghertner, president of Cullom & Ghertner Co., Nashville, Tenn., in discussing problems which arise every day in a medium-size plant, emphasized the importance of planning. "Our shop layout, the type of machines, our stock (as to inventory, availability, usage and storage), the development of our working force-all of these should be the definite result of lots of thinking about what we are doing, what we want to do, and what we can do," Mr. Ghertner said. Proper management, he pointed out, which is essentially proper planning, minimizes and frequently prevents problems from arising. And if they do arise, proper planning provides a procedure, already set up, to cope with them.

He reminded that "50 percent of our problems can be overcome by just doing what someone in the plant already knew, but didn't put into practice. More problems can be solved by interested, sincere, happy people in the ranks than we can ever hope to conquer at the management level." He discussed ways of interesting employees in the company and its success. A booklet, "Your Company and Your Job" recently was issued by Cullom & Ghertner to define company policies and objectives.

In conclusion, he suggested, "When a problem comes, accept its challenge and enjoy the contest. These are the thrilling moments in business."

Offset and the GPO

Hon. John J. Deviny, Public Printer of the U.S., revealed in his address that 50 percent of the individual bids of the Government Printing Office are done by offset lithography, while 70 percent of the term-contract work goes to lithographers. Today the GPO is again in a situation, he said, where it needs the help of lithographers, because of the increasing pressure of war emergency work and the stepped up preparedness program. The GPO's offset division began in 1926 he related, and today it contains 14 single-color offset presses, and one perfecting press. Two hundred twentyfive employees now work in offset preparation, platemaking and press departments, in addition to the composing and bindery departments which also handle offset preparation or finishing.

As for government controls affecting the graphic arts, he urged that the association take part in the planning for these controls so that they may be developed in a more satisfactory form.

Health, Wellare, Pensions

Twenty-three lithographer health and welfare funds have now completed one year or more of operation, in the industry, according to L. M. Cathels, Jr., of the Group Div., Aetna Life Insurance Co., who discussed such welfare plans. In these funds, he reported, 12,624 insured employees have developed an annual premium of about \$1,260,000, Claims last year amounted to \$730,000, or 58 percent of premiums. Refunds which have been made or which are in the process of being made will amount to about \$350,000 or 28 percent of premiums for the same period. The total return in claims and refunds then will be approximately 86 percent of premiums paid.

The lithographic industry was one of the first to enter the joint trusteed welfare funds, Mr. Cathels said, In many places the lithographers' fund introduced something entirely new to

the community. Therefore, he concluded, it is not surprising that there were many problems created which might not have existed had welfare funds been as familiar as they are today. "Now it is apparent," he asserted, "that the principle of the trusteed fund is not a passing fancy, and that the welfare fund in the future will be just as much an accepted part of doing business as social security and the withholding tax have become . . . All parties concerned should, to the fullest extent practicable, cooperate toward the end that these funds may be run as efficiently as possible."

Labor Relations

In discussing labor relations, Walter E. Soderstrom, executive vice president of the NAPL, outlined welfare and pension increases granted across the nation in recent negotiations, and also gave a detailed outline of wage increases agreed upon in 1950. These ranged from no increase in some cities, up to \$12 per week across the board in Washington, D. C.

He discussed the main points of the Amalgamated Lithographers of America proposed national pension plan, which he outlined as:

- The plan is to be administered exclusively by the International Union without any participation whatsoever by employers.
- (2) The plan is to be financed by obtaining a wage increase in the amount required from each

7. Paul Heideke, Washington Flanograph Co., Washington, D. C., A. D.
Kirkpatrick, Rapid Roller Co., New
York, Ralph Rogers, IPI. New York: and
Albert Materazzi, Aeronautical Chart
Service, Washington, B. Max Wheelwright, Wheelwright Litho, Salt Lake
City, E. R. Coate.
Rubber Co., Akron. John Skahill, and
Ted Randall, both of Roberts & Porter
9. E. G. Williams, ATF, with Russ
Baum, Russell Ernest Baum, Inc., Phila.
10. Carl Meilick and William Stevens,
Miehle Co. with Ray Blattenberger,
Edw. Stern & Co. Phila. 11, Ralph Barrels, General Litho & Printing Co.,
Kondon, Mill. H. J. Schultz, Schultz
Litho, Chicago. 12, Charles A. Perrone,
Empire Superline Ink Co., New York.
13. George R. Keller, Washington,
Walton W. Sullivan, Litho Poster Co.
of America, N. Y. and Mrs. Sullivan,
who where observing their 25th wedding anniversary. Mrs. Herbert Gelb,
New York, and Mrs. Keller.





member to support the pension program,

- (3) Each local is to hold in trust all funds collected for a pension plan until the International Union establishes its plan.
- (4) When the International Union's Pension plan is established, participating locals will be required to pay into the International Union's Pension Fund the amount required to support the plan. If the local has collected any excess funds these will go into the local fund or reserve.
- (5) The International estimates that its pension plan will require payments of about \$1.60 per week per member but the local unions are urged by the International Union to negotiate a wage increase of at least \$2.50 per week per employee, the excess to be devoted to unemployment benefits and other expenses, details of which are not known.

A "guess" as to what union demands will be from now on, was outlined as follows:

- 1. Wage Increases
- 2. Health and Welfare Plans
- 3. Pension Plans by way of wage assignments
- 4. Complements of Help on Press Equipment
- 5. Three Week Vacations
- Such other working conditions to reach the pattern of

A Six paid holidays.

B Overtime rates of 152T

14. Stanley A Crane, Hennegan Co-Cincinnati: Herb Harris, Providence (R1) Litho Co. Stanley Goldsmith and Al Clair, both of Eastman Kodak Co. 15. Henry P. Deters. Edwards Bros. Ann Arbor. Mich. and Pete Rice, Electric Boat Co. 16. Sidney Levine, Consolidated Litho, Corp., Brooklyn. Fred Burtanger and Arthur Mahnken. both of Sinclair & Valentine Co., N. Y. 17. Phil Kirby, Fuchs & Lang, Boston, Frank Sullivan, Forbes Litho, Boston, and Ted Makarius, Pope & Gray, N. Y. 18. Victor E. Friedman, Crafton Graphic Co., N. Y. Edward C. Spencer, and Stuart E. Arnett, both of Harris-Seybold Co. Cleveland. 19. William Brazier, Bridgeport Engravers Supply Co. Boston, and George Goldsmith, of Geo. Goldsmith and Harold Tregar Advertising Agency, Providence, R. 1

for first two hours, 2T thereafter, 2T for all day Saturday, Sunday and holidays.

Reminding that Cost-of-Living Index figures usually are used as the basis of wage demands, he cited figures to show that the Cost-of-Living is now 72.5 percent above the base period of 1935-39, while wages today stand at a level of 113.9 percent above those of the base period. The lithographic industry pays the highest wages in the graphic arts, he said.

"Real wages can come only from the production of things," he declared, "This is a constant factor, and unless the worker contributes a greater production individually and collectively, it will be most difficult for either the worker or the employer to better his position."

Mr. Soderstrom urged the taking on and training of every allowable apprentice, as a safeguard against the growing shortage of skilled workers, and chided many employers who retuse to do this. He urged employers to hold the line on premium wages, and that they be cut back nearer the scale whenever possible. As an example of the trends in the opposite direction, he said that black and white cameramen ask for color cameraman wages, black and white strippers for color stripper wages, etc.

"The industry down through the years has provided a good return for both employees and employers," he concluded. "It can continue to do this if both sides will cooperate to the extent that employees be satisfied with their present high standards of wages and working conditions. The employer in turn is entitled to a fair productivity and a reasonable profit on his investment."

LTF Research Meeting

As part of the convention activities, the Research Committee of the Lithographic Technical Foundation held its annual meeting on Thursday evening. Frank A. Myers, Copifyer Lithograph Corp., Cleveland, committee chairman, presided, and a lengthy report on research activities for the past



Robt E. Rossell Albert Materazzi D. O. Johnson E. A. Hilperis

The Saturday Litho Club panel: Jos. Mazzaferri, Phila: Robert F. Reed, Chicago, George Hammer, Boston; M. H. Bruno, Chicago, Frank England, N. Y.; A. D. Kirkpatrick, N. Y.; Harold Dethlefsen, Chicago, Samuel Sachs, Washington; Charles Spooner, Washington; Robt E. Rossell, Washington; and Walter Kaiser, Phila

year was read by Michael H. Bruno, research manager. Among the many items discussed was a newly developed method of plating copper on aluminum plates for a bi-metal litho plate. Initial tests with the plates showed "interesting results," he said. Mr. Bruno also reported on successful tests made in the Chicago laboratories with new paper dampener roller covers which can be thrown away after a day's run. "We haven't washed dampeners in the laboratory pressroom for six months," he reported. The research budget in 1950 was \$89,000 he said, and the same amount is guaranteed for 1951. Considerable discussion followed the reports,

Safran's Growing Pains

From a printing shop operating in a Detroit garage in 1932, to one of the Midwest's larger plants, is the record which provided the "growing pains" for Safran Printing Co., Detroit. David Safran, speaking on "Lithographic Growing Pains" related how his father had founded the company in 1904 in Detroit, but in the depression, 1932, the business was torced to leave its 30x100 foot store space, and move into a garage. Elias Safran, the father, died that year, as did also one of his sons, and David and another brother, Hyman, carried on the business. Volume increased, but a court action by resident neigh-



Mailet Gives, and Receives. Lett. A. P. Reynolds, S. D. Warren Co., Portland, Me., receives framed resolution honoring him for contributions to lithography, from Charles E. Mallet, NAPL president. Right. Mr. Mallet is surprised with similar award, presented by Harry E. Brinkman on behalf of NAPL.

hors, although unsuccessful, caused the company to move to an industrial section of the city, where the plant is now located. A United Auto Workers union newspaper was produced a few years later, and provided an important account around which the company grew. In 1937 small offset equipment was added, and later was replaced by larger equipment. Recently multi-color offset equipment, including a four-color press, have been added. Mr. Safran recalled lessons learned by very expensive experience, and outlined some basic points of sound management.

Human Relations

"Everyone must sell—the boss must sell to employees, and employees must sell to the boss," according to Wallace G. Strathern, director of training, Eastern Gas and Fuel Associates, Boston, who discussed "Human Relations." Any person, no matter what his position, needs three things, he said: technical knowledge of products and services with which he is associated; hard work; and selling personality. The principles of getting along with people, basically the ability and willingness to talk from the other fellow's viewpoint, are so obvious that they too often are overlooked, he reminded.

Work of LTF

Harry E. Brinkman, president of the Lithographic Technical Foundation, and president of the Cincinnati Lithographing Co., outlined the work of the Foundation over its more than a quarter of a century history. The LTF pioneered in the development and improvement of such accepted

(Continued on Page 94)

How to Simplify Work in a Lithographic Plant

By Frank a. Myers

Treasurer, Copifyer Lithograph Corp.

PART I

TORK simplification isn't new. Probably in the old days the definition was "How to avoid work." The sail-the plowthe wheel- all these are early examples of work simplification.

Nowadays work simplification is defined as "The organized use of common sense to find easier and better ways of doing work." Work simplification is not a speed-up program, It does not mean asking anyone to work harder or faster.

We've had lots of jobs in our plant where our employees appeared to be working like beavers. They went home tired at night. Now, after we have applied work simplification to these jobs, our employees look like they are loating. Yet they are turning out more work-and with less

effort. Through work simplification we eliminated the unnecessary work.

Getting Ideas Accepted

Allan H. Morgensen is known as the father of work simplification. I first heard him speak in Cleveland three years ago. He started out by saying "I'm not going to talk about the principles of methods engineering. Anybody can figure out better ways of doing a job. The principles of work simplification are all published." He then outlined the reasons why perfectly sound methods engineering often doesn't work. It's because it isn't sold properly to the man at the bench-it isn't sold to the unionit isn't sold properly to management. Mr. Morgensen spent the entire evening hammering home the point that

getting the acceptance of a new and better method is just as important as developing the new method.

At Copifyer we had for years been working out better job methods. Many a time I figured out a hot new idea. To me the advantages of my idea were as plain as day. But the superintendent or the foreman, or the workman didn't think my idea was any good. Even though I could make it work, and insisted the new method be tried, it would often fall into disuse in a week or so. It didn't take because it hadn't been accepted.

I saw how important the acceptunce of a new idea is, I realized that I had largely overlooked the human relations angle. I hadn't

CAMERA LENS SETTINGS

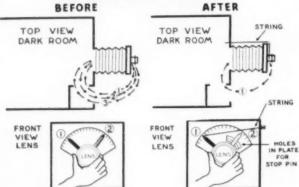


CHART I

BEFORE: CAMERA LENS SETTINGS Line work arrera is dark room type not equipped with inside as aperture control.

lens wide (position 1). Walk 10 feet, open 2

sers.
Focus to size. Walk 10 feet, open 2 doors.
Stop nown iens to exposure aperture (position 2).
sik 10 feet, open 2 doors.

Problem: How to reduce the number of trips in and it of the darkroom.

cont of the starkroom.

Change: A small metal plate was fastened to the lens scale. A hole was drilled opposite each lens aperture setting. A pin could be put in any hole to act as a stop. String was attached to the lens stop indicator arm and ran over a small pulley into the inside of the dark room.

AFTER: 1 Open lens wide (position 1). Put pin is hole for smaller stop wanted later. Walk 10 feet, open de for smaller and doors.
Focus to size. Pull string to stop down lens, (po-

Comment: One round trip, in and out of the dark com, was savel for each separate focus exposure, newer type camerus make this saving with inside lens

spent enough time selling the individual on what there was in it for him. I had been taking all the credit for the new idea. I had overlooked the following 3 important points.

- 1. People resist change. My wife had always resisted vigorously any of my suggestions about more efficient ways of her doing the housework. Yet I had felt that all our shop employees were open-minded. I thought they would change their work habits as scon as a better way was found. When they didn't change fast, I thought they were uncooperative.
- 2. People resent criticism. It was a surprise to me to find that people actually resented my suggestions. I thought they would realize instinctively that I was trying to help them do the job easier. They thought I was criticizing them, because I didn't explain the reasons "why" for the change.
- 3. People will fight for their own idea more than for your idea. I was pushing my ideas. Our employees were lukewarm because it wasn't their idea. To me this is one of the most important points that Morgensen covers in his approach to work simplification.

Let's follow that a little further. During the last war an opinion survey was made among workers in the Pittsburgh area. One of the questions asked was "Who do you hate the most?" Here's the score:

> First: The Nazis Second: The Japs Third: Efficiency Engineers

To the average workman the "efficiency expert" is an SOB with a stop watch. Suppose the outside "expert" goes into a lithographic plant and says to top management: "I can save you \$10,000 the first year on the operations in your plant." This is the same as saying to the superintendent. "You are wasting \$10,000 of the company's profits every year." Is it any wonder the superintendent goes out of his way to sabotage the efficiency program and make sure the improved methods do not work? Everybody resents an outside "expert" telling him how to do his job.

PLATE SORTING AFTER BEFORE NO BEND BEND NO LIFT LIFT NO SQUINT SQUINT

CHART 2

BEFORE: PLATE SORTING. For quality work sort out grained plates with the fewest kinks marble bumps.

- Bend over and pick up a plate from a skid. Hold curved plate against stomach. Squint along plate surface at overhead light
- 4. Bend over and lay plate on another skid. Problem: This method did not reveal all the plate defects. The light was not even across the plate: Often this method added new kinks to the

Change: Grained plates were stacked on an A

frame. A row of spot reflector lamp bulbs was hung above the plates. Lamp support was mov-able so light could be adjusted to just graze the surface of the plate. At grazing angle, small plate defects became much more visible. angle, small

AFTER: 1. Examine top plate on A frame by overhead grazing light. Lift plate to another vertical pile at left.

z. Lift plate to another vertical pile at left. Comment: Plates were sorted more quickly. No bend, no lift, no squint. Overhead lighting strip was later put on a sliding trolley. Then we could sort two piles on the front of the A frame, and two piles on back of A frame.

PLATE MAKING BEFORE

MAN	WHIRLER	VACUUM FRAME
COAT	WHIRLING	
	WHIRL DRY	阿斯斯斯
FRAME	A dec	BEST OF
Side:	Sec. 5750	EXPOSING
DEVELOP		STOCK WITH

AFTER

MAN	WHIRLER	VACUUM FRAME
COAT "3	WHIRLING	2772/15形成 有1
LOAD "Z	WHIRL "3	
DEVELOP "I	WHIRL "3	EXPOSE "2

CHART 3

REFORE: PLATE MAKING Ba'ancing man

- Man has only one plate in process at a time. 2. Man has "waiting" time while machines are
- 3. Machin a are idle while man is working.
- Problem: How to dovetail man and machine erations so tha "waiting" time. that man and machines have lesst

AFTER: 1 Man has three plates in process at a

Man spends no time "waiting" for machine.

Comment: Most shops use the AFTER method. This chart is shown here because the principle of balancing man and machine time is often fergotten in other departments. All jobs should be analyzed to see if the man can do other operations while he is "wattings" for a machine.

PRESS DAMPENING OVERSIZE WORK

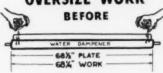




CHART 4

BEFORE: PRESS DAMPENING - cy-raize work. Often the lithographer wants to run over-alze work on a press. It is then difficult to con-trol the water on the edges of the plate.

- 1. Squeeze fountain solution with a sponge on to
- and of damper rollers.

 Walk around to other side of press.

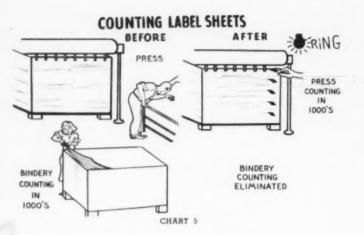
 S. Squeeze solution on to other end of damper

Problem: It is hard to apply the correct amount of fountain solution with a sponge Too little water causes a catch-up on the edge of the plate. Too much water spoils the printing quality and waterlogs the ink. How could we continuously supply just the right amount of ad-ditional founts in solution on the ends of the

Change: Two sight-feed oil cups were attached to the press, one over each end of the damper

AFTER: 1. Operator fills oil cups with fountain

2. At start of run oilers were adjusted so one drop of solution falls every 15 or 20 sheets. Comment: Once adjusted, oil cups require little attention from the pressman. Catchup on the edge of the sheet is avoided. Quality is improved.



HEFORE: COUNTING LABEL SHEETS. Job required labels to be packed 1,000 to a package. Job did not require hand sorting after printing.

1. Print on the press.
2. Hand count in the bindery

Could the hand counting be climinated? Problem: Could the hand counting be eliminated? [Change: A bell-ringing counter was installed on

AFTER: 1 Pressman adjusts the counter to ring

the bell every 1,000 sheets.

2. Whenever bell rings, preer in the skid pile. rings, pressman puts a paper mark-

Comment: Entire cost of bindery hand counting and rejogging was saved. Pressman was able to do counting operation during his "waiting" time. (There are now on the market several machines which

will put a paper marker into the press delivery pile at any predetermined count.



CHART 6

BEFORE: ADJUSTING PRESS INK FOUNTAIN

REYS.

1. Pressman spent considerable time at start of run adjusting ink fountain keys to give proper lay of

In the shop, the men often resent

"experts" from the front office, who

never worked at the bench. "Who

are you to tell me how to do this

job better? I've been 30 years in

the business." That's what goes

through your employee's head, even

though he doesn't say it out loud.

2. To judge amount of ink needed, presuman could see only about 1.3 of the plate at a time, after it is strapped around the press cylinder.

3. Adjustment of solid lay of colors was quite difficult. In shutting off ink, often the key was turned do This caused uneven wear on the ink fountain blade

Problem: How to get more accurate lay of ink? How to get faster makerendy?

Change: A graduated dial was fastened to each inker key. Each dial registered zero when the blade touched evenly all across the drum. Each division on the dial represented an ink gap of .001 suggestion was originally made by Charlie Latham in

AFTER: 1 Pressman puts new plate flat on press-inspection table. Edge of table is marked to show position of each ink key.

Pressman sees all the work on the plate. He marks the desired setting of each inker dial on a printed

3. After strapping plate into place, pressman has time to set inker dials while he is "waiting" for helper to change paper loads.

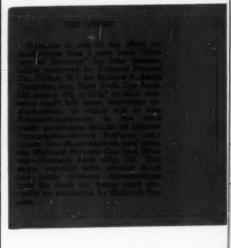
Comment: After experience, amount of ink in terms of a number. Makeready in faster

For solid lay of color, all dials are set to same numb Amount of ink is changed by adjusting notches on ink fountain.

On work and turn jobs, fountain keys are set to same key settings recorded from the first run. To shut off a key, preseman turns dual to zero no further. Less wear on inker fountain blade.

The Indirect Approach

Morgensen tried the indirect approach in selling people on better methods engineering. Whenever he went into a plant he was not introduced as an "expert." At first the men probably thought he "didn't know from nuthin" because he asked



so many questions. He asked the guy on the job questions about how the job was done-why it was done that way-how it could be done better. He acted as a catalyst instead of an expert.

Sometimes he found the worker had some real good ideas on improving his job. He'd been trying to sell the foreman for years. But the foreman was atraid to take the "crazy idea" to his boss for fear it might not work, and he would be criticized.

Usually Morgensen found present job methods being accepted because they had always been done that way. By dropping ideas indirectly, by asking questions, he found he could gradually open the worker's eyes and get him to analyze his own job. Then maybe six months later the worker would come up and say, "Say, I just got a hot idea." Then says Morgensen, you have to bite your lip to keep from saving "You darned fool, I've been trying to tell you that for six months!" You have to keep a straight face and say "That sounds good, tell me more about it." It's now the worker's idea, and he'd really fight to make it succeed.

This indirect approach of selling ideas isn't new. Benjamin Franklin tells in his autobiography that he never advanced any ideas in politics as if they were his own. He always

(Continued on Page 107)





A Review and Appraisal of

LABOR RELATIONS

Increases in lithographic wages in the last ten years have far outstripped those in many other industries.

By George a. Mattson

Lithographers National Association*

URING the period from August 1949 up to and including August 1950, there was no distinct or specific pattern of union proposals. This is to say that, with one or two exceptions, proposals varied city by city, and seemed to reflect a policy of local rather than national determination. The two outstanding exceptions were pensions and vacation benefits. To illustrate the variation in union proposals, wage demands ranged from \$12.00 per week across the board in Washington, D. C., to the absence of wage demands in New York and Milwaukee. Of some importance is the fact that the local unions made no wage proposals in Toledo, Rochester and Philadelphia, thereby waiving all rights under reopening clauses calling for wage rate negotiations,

Wage Settlements

Taking into consideration those cities in which the union made wage demands, settlements ranged from no increase in San Francisco, Poughkeepsie. Racine and Los Angeles to a high in Cleveland of 9¢ per hour for all journeymen whose rates established in 1949 were \$49,00 and over. Taking into consideration cities in which wage increases were granted, the low was 21/2¢ per hour in Oklahoma City. In addition to the cities just mentioned in which there was no change in rates, the rates in New York. Philadelphia, Toledo and Rochester remained the same as those

which became effective in the latter part of 1948 and the early part of 1949. In addition to the general increase in wage rates negotiated during this period, additional increases in varying amounts were granted in the form of upward adjustments by individual job classifications, particularly in the larger two- and four-color journeymen pressmen classifications.

Hours, Holidays

There were no important changes in the number of hours in the work week and in the work day by shifts from those which were established by negotiations prior to August 1949. The 361/4-hour work week remains the prevailing practice, although the 40-hour work week is prevalent in some areas. In this connection, I should like to say that in Seattle the pressure for the establishment of a 35-hour work week was indeed heavy. apparently by reason of the fact that the allied unions have been on a 35-hour work week in Seattle for approximately five years.

Premium rates for daily overtime, Monday through Friday, and for work performed on Saturdays, Sundays and holidays remained unchanged. Second and third shift differentials remained unchanged with the exception of minor revisions in Buffalo and Poughkeepsie.

Similarly, there was no change in the number of paid holidays when not worked, the exceptions being Providence, R.L., and Washington, D. C., in which cases one additional holiday was negotiated. Six paid holidays when not worked remains the prevailing practice, the traditional exceptions being Boston, 11; New York, 10; Providence, 9; Salt Lake City, San Francisco and Seattle, 7; Portland, Oregon, 6½; Atlanta and certain Southwest cities, 5.

Welfare Classifications

Employer contributions to health and welfare benefit plans which were established during 1947 negotiations and subsequent thereto, calling for payments of \$1.50 to \$2.00 per week per employee, remained unchanged except in New York and Minneapolis and St. Paul, in which the employer contribution was increased to \$2.50 per week per employee. While employer contributions generally remained unchanged, benefits have been increased, however, through the use of monies made available out of surplus funds, accumulated principally through dividend payments.

During the period of contract negotiations covered by this report, as in previous periods of negotiations, the union in some areas made proposals calling for changes in the job classifications. A comparison of contracts negotiated prior to August 1949 reveals, however, few changes were made. In New York there were some classification changes in the wage scale which became effective Feb-

Based on an address before the 45th annual convention, Lithographers National Assn., Edgewater Beach Hotel, Chicago, Sept. 1950. ruary 1, 1950. Here it should be pointed out that job reclassification has been under consideration by a joint reclassification committee for some time. Also, in instances in which job reclassification called for increases in wage rates, these increases are to be paid in four equal amounts every five months beginning April 1, 1950.

Vacation benefits established prior to August 1949, for the most part, remained unchanged, the exceptions being that under the group contract in New York and Chicago employees will receive three weeks vacation. effective 1951. In Washington, D. C., one employer granted three weeks vacation after three years of service, effective 1951; and in Boston, Massachusetts, one employer granted vacation benefits effective 1951 equivalent to three weeks after five years of service. In New York and Chicago the qualitying years of service are one and five years respectively. In those other areas in which additional vacation benefits were the subject of collective bargaining, negotiations were concluded without any increase in previously established vacation benefits. Obviously, the establishment of the practice of granting three weeks' vacation is precedent setting and, in all probability, the union will continue to press for universal coverage, or at least use the three weeks' vacation principle as a trading point for an increase in wage rates in excess of those recently granted.

Pension Plans

Recently the International Council of the Amalgamated Lithographers of America approved the establishment of a union pension plan to be operated and controlled exclusively by the union.

The essential teatures of the union's proposed national pension plan are as follows:

- The plan is to be administered exclusively by the international union without any participation whatsoever by employers.
- The plan is to be financed by obtaining a wage increase in the amount required from each mem-

- ber to support the pension program.
- Each local is to hold in trust all funds collected for a pension plan until the international union establishes its plan.
- 4. When the international union's pension plan is established, participating locals will be required to pay into the international union's pension fund the amount required to support the plan. If the local has collected any excess funds these will go into the local fund or reserve.
- 5. The international estimates that its pension plan will require payments of about \$1.60 per week per member but the local unions are urged by the international union to negotiate a wage increase of at least \$2.50 per week per employee, the excess to be devored to unemployment benefits and other expenses, details of which are not known.

Information available as of this reporting indicates that the international union has designed three plans to be submitted to the membership for the purpose of determining which should be adopted.

In accordance with the international union's recommendation to its locals that the pension plan be financed by obtaining a wage increase in the amount required from each memher to support the pension program, certain local unions have followed this recommendation. Employers, as parties to the group contracts in Chicago, Detroit, Cleveland, Cincinnati and Kansas City, are now committed to pay employees weekly wages in two checks, both of which are payable to the employee, one in the amount of \$2,00 or \$2,50 and the other to cover the balance of the employee's earnings. It is understood that the \$2,00 or \$2,50 check payable to the employee is then turned over by the employee to the union for deposit into a local fund or reserve. In this connection, employers in New York have been tollowing this method of payment of wages since 1947.

During these negotiations we made the tollowing recommendations:

- That employers check applicable state laws with respect to the payment of wages;
- That employers obtain from each employee authorization to pay his wages in the form of two checks;
- That both checks should be made to the order of the employee, be given directly to him, and to no other person or persons; and
- 4. That in the event employees presented to employers a wage assignment calling for a certain percentage or amount of total weekly gross earnings to be paid over to the union or representatives of the union, that such assignment should not be honored until the validity of such payments by employers to the union, or union representatives as assignees, be upheld by a final court adjudication and any appeals therefrom.

As a result of the payment of wages in the form of two checks to facilitate the setting-up of the union's proposed pension program, questions have been raised as to whether or not employers by so doing are thereby subject to certain legal hazards which could be detrimental to their best interests.

It will be recalled that during contract negotiations in San Francisco in the fall of 1949 an agreement was reached with respect to the setting-up of a pension program to be jointly administered by representatives of the union and certain representatives of the San Francisco Lithographers Association. After months of intensive study and investigation, a plan has been worked out which is apparently satisfactory, both to the local union and the San Francisco employers. This plan is financed on the basis of an employer contribution of 3% of basic weekly earnings. Having had the opportunity of reviewing the pension plan and the trust indenture under which the plan is administered. I can only conclude that an excellent job has been done, While it appears that the employers and local union representatives are presently satisfied with the plan, there is some reason to believe that the international union is not in complete accord. This is readily understandable by reason of the fact that a pension plan set up on a joint administration basis does not coincide with the plans for setting up the union's national pension program. In this connection, it also will be recalled that by agreement, pensions as a subject of collective bargaining in San Francisco cannot be discussed until the fall of 1953, that being the end of the four-year period for which the subject of pensions has been frozen.

Health and Welfare

Let us consider a closely related subject of considerable import, health and welfare programs, particularly from the point of view of administration. With respect to the benefits made available to employees and their dependents as the results of the establishment of health and welfare plans through collective bargaining. these benefits are for the most part of a deluxe nature and better in general than those made available to workers in other industries. This fact is based upon the examination of the provisions of some thirty-odd negotiated health and welfare plans,

With respect to the administration of these plans, it is to be remembered that as negotiated plans they are jointly administered. As such, employer representatives serving on joint committees have a responsibility to see that these plans are administered with a maximum of efficiency and effectiveness. These representatives should at all times be aware of the duty to see that the financial soundness of these plans is maintained. There is some reason to believe that in some few instances employer representatives are not exercising their full rights and duties as members of the joint committee. In this connection, year-end reports made by the insurance carriers under the heading of Experience in terms of actual premiums paid, incurred claims, retention figures and percentage of retention, should be more carefully audited and scrutinized. In other words, there is good reason to believe that year-end reports from insurance carriers should be made in greater detail and, where such is not the case, then the joint

committee should request more detailed reports. Such request should be framed in such a manner that any response thereto should reflect in detail all actual costs and charges involved in the case. The premiums paid should be listed, as well as claims actually incurred, amount of unreported claims, estimated amount of contingency reserves, reserve for taxes, commissions and cost of administration. Such information will be helpful in determining the actual expense of administration and whether or not the actual retention figure is a justifiable one.

Cost of administration of the local welfare fund office should be carefully scrutinized. It is only with these types of information made available that adequate yearly reporting can be made. With respect to year-end reporting, a vehicle or a method of exchange of information concerning the operation of the health and welfare plans in this industry should be es-

tablished in order that those responsible for the administration of these health and welfare plans can realize the full benefits derived from the exchange of such information. Possibly, a standard form of reporting should be set up to achieve this desired end. An exchange of information with respect to the details of administration of health and welfare plans at the local level together with information as to policy governing the setting-up of reserves and the use of surplus funds above these reserves would be, I am sure, exceedingly helpful, Maintaining the actuarial soundness of these plans should be the first considcration of those responsible for administration.

Struck Work

With respect to disputes, struck work or the so-called boycott clauses, the Union during recent negotiations has attempted to strengthen the word-

(Continued on Page 99)

Keep Your Plates in the Cooler

A report on the Lithographic Technical Foundation's Research on the effect of temperature on plate Coatings*.

TN the past, high relative humidity has been considered the platemaker's biggest summertime bugaboo. It not only made him uncomfortable, but it also raised havoc with platemaking. Now, LTF has uncovered some new information which shows that high temperatures can provide headaches that are just as bad as high relative humidity. That high temperature adds to the platemaker's discomfort is not new, but the fact that it makes big trouble with plates is. In fact, this new information may help clear up troubles that previously have been unexplainable.

LTF has just concluded a three year study of factors that affect the sensitivity of plate coatings. During this study, more than 2500 test plates

were made and analyzed and considerable new information about dark reaction, continuing reaction, relative humidity, coating pH, and the effect of the fringe around halftone dots has been developed. This information has been discussed in previous articles from LTF.

In a final series of tests, LTF studied the effect of temperature. Strangely enough, temperature, which has so often been ignored, was found to be just about as important a variable as relative humidity itself.

To determine the effects of temperature on plate coatings, a great many albumin and deep etch test plates were made on both zinc and aluminum. These plates were prepared and ex-

From material prepared for "Research Progress" published by the Lithographic Technical Foundation.

posed under a variety of conditions. The net result of the work was to establish two important facts regarding dark reaction:

High temperature speeds it up.
 Refrigeration practically stops it.

Dark Reaction

Dark reaction, you will recall, is a tanning or hardening of the coating that starts as soon as the plate is coated and proceeds until the plate is developed. It takes place even if the plate is kept in the dark and never exposed. LTF has found that if a plate is coated and stored at any working room temperature and relative humidity, dark reaction eventually will harden its coating completely.

Dark reaction has the effect of preexposing or "super-sensitizing" the coating. Its practical effect is that the longer the plate stands, the less exposure it needs to produce the required amount of hardening or halftone dots of the desired size. The speed with which dark reaction is taking place also determines how long a coated plate can be allowed to stand before it is exposed and still be satisfactory as far as its development and performance on the press are concerned.

Relative humidity and time have always been considered the most important factors affecting the amount of dark reaction that would take place. It was thus surprising to learn that temperature affects dark reaction just about as much as relative humidity. Many platemaking systems have been based on variations of relative humidity alone. In view of LTF's recent findings, such systems, of course, are inadequate for full control of platemaking and the tone values that the plate will print. According to LTF any system that does not consider changes in temperature and all the other variable factors in platemaking is bound to show inconsistent results

Effect of High Temperature

In the temperature range from 78 to 108 F. (108 F. corresponds closely to the usual temperature in a heated whirler) LTF found that each rise of 10 F. increases the dark

reaction rate 2.5 times. This increase is in addition to any increase caused by high relative humidity. In other words, at the same relative humidity a plate exposed to a high temperature will "stale" faster than another plate exposed to a lower temperature.

This fact indicates that you must be careful in using heat in the whirler waen the humidity is high. Use heat during the initial stages of drying, but turn it off as soon as the plate is dry. A combination of high humidity and high temperature will greatly reduce the time that can be permitted to elapse between coating and development. Such conditions occur in a closed whirler that is not ventilated. The air inside the whirler becomes more moisture-laden as well as hot.

The effect of heat is usually not too important if the whirler is ventilated. While the heat speeds up the dark-reaction, it also lowers the relative humidity inside the whirler which has the opposite effect. The two effects thus tend to cancel each other. Anything that can be done to increase ventilation in the whirler will speed up drying and reduce the bad effects of heat.

Heat and humidity have little ettect while the coating is still wet but once it has dried, the plate should not be permitted to remain in the whirler with the heat still on, Neither should plates that have been coated during a period of high relative humidity be heated afterwards in an attempt to lower the moisture content of the coating. The higher temperature affects the plate just the same as the higher humidity would have. In an emergency, a little heat drying after exposure may prevent stickiness or penetration of the deepetch stencil, but this is accomplished only at considerable risk of overhardening the stencil and making the image more difficult to develop out.

The problem is to know at what point the beneficial effects of heat in drying the coating are cancelled by its bad effect in shortening the life of the coating. Unfortunately, platemaking procedures vary so much from plant to plant that it is not possible to state a maximum safe temperature that will fit all conditions. LTF believes that the safest rule is not to heat the plate any more than is absolutely necessary.

Effect of Low Temperature

The second important fact developed in LTF's research was that refrigeration stops dark reaction for all practical purposes. It was found that the plates kept at temperatures between 40° and 50°F., can be stored safely for several weeks even at rather high relative humidities.

This, of course, immediately suggests that plates can be pre-coated several weeks before they are exposed if there is a suitable refrigerator in which to store them. At the LTF laboratory, satisfactory plates, both deep etch and albumin, have been made from plates coated eight weeks before exposure.

LTF also found that cold plate coating has very low sensitivity to light. Thus, there is an important requirement when working with a refrigerated plate: the plate must be alowed to warm up to the plateroom temperature before it is exposed. It should therefore be removed from the refrigerator and allowed to stand in the plateroom for about an hour before proceeding with the exposure.

Summary

In LTF's study of factors that affect the sensitivity of plate coatings, it was found that temperature has a decided effect on the rate at which dark reaction proceeds. This affects the sensitivity of the coating and, along with the relative humidity, determines how long a plate can stand between coating and development.

As a general rule, avoid high temperatures especially when the relative humidity is also high. The higher the humidity the less the heat that can be safely used. If it is desired to pre-coat plates and keep them for any length of time, store them in a refrigerator at a temperature between 40° and 50° F.

Such plates can be kept for several weeks before exposure and still be satisfactory for use.

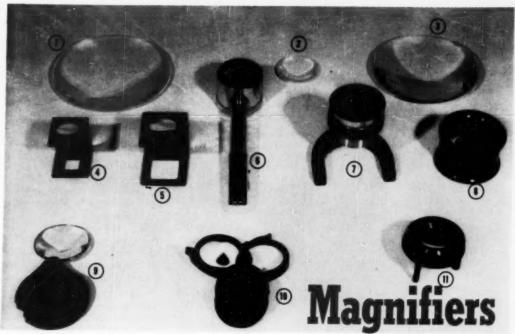


FIGURE I

T is true that a good lithographic craftsman and his magnifying glass (loupe) are seldom parted. The magnifier is the constant tool for studying grain on plates, for examining minute details and halftone dot structure of negatives and positives, for studying dot structure on plates, on printed sheets, and for other numerous purposes in the lithographic plant.

Yet, it is also true that in many shops there is not a sufficient variety of magnifiers for the needs at hand, or these are the wrong kinds of glasses for the job. These conditions may not be recognized readily, because of habit. But actually, when an improper magnifier is used, the man may as well be blind, for he cannot see what needs to be seen. After using the proper lenses for a short time, he will never be without them. Seeing dot structures with sharp definition is absolutely essential in maintaining the quality demanded today.

A lens magnifier or microscope need not be very expensive to be useful. So long as it does fully the Are you using the proper type of glass for various jobs?

By Harry Ross

New York, N. Y.

work that is required of it, the cost is unimportant. For some work a simple unmounted lens costing only 20ϵ will do. For accurate measurement work a microscope costing several hundred dollars is required. Between these two extremes there is a large variety of magnifiers ready to serve you.

Because of the variety of work usually done in a shop several magnifiers of various "powers" and optical qualities should be on hand. When purchasing a lens magnifier always remember that a large lens, while covering a large area and therefore giving coverage, cannot under any circumstances give high power. It is also true that a small lens which can be made to yield high power will

cover less and less area as the power is increased. A compromise must be accepted either on power or area, or several magnifiers must be purchased.

To get the best results with a lens magnifier the proper lighting conditions plus the proper position of the lens, the work, and the eye, must be met. Light should fall on the work only and not on the lens itself. This light should come from the front. Image contrast can be increased or controlled by lowering the light source so that it sweeps across the work. First adjust the light angle for best results with the job at hand. The eye is placed as close to the lens as possible and the work brought up to the lens, until a sharp

image is seen. This is the only correct way to use a magnifying glass. Of course, for some work it will be necessary to move the eye and lens as a unit toward the work. With the very simple reading glasses it is proper to increase the distance between the eye and lens and thus get a slight increase in power. In any case be sure the light falls on the work at a proper angle and that all light is shielded from the eyes and the eye side of the lens.

All the "simple" magnifying glasses or readers work in this fashion and if you refer to Fig. 1 items #1, 2, 3, 9 and 10 and in Fig. II to items 3 and 4 these simple reading glasses are shown in the various forms in which they can commonly be purchased. Maximum power of these readers is about 1½ to 3 times. While these come mounted in many ways, as shown, basically they are all the same from the 20¢ unmounted lens to the

hand lens with the bakelite frame, costing about \$4,00.

In "registering" work where work is placed over work, yet both items must be seen at the same time, you will find that only low-powered lenses (2 to 3 times) will work. This is because only long-focus low-powered lenses have the necessary depth of focus.

The next group of lenses we will consider differs from the first in that they have some means of support to hold them in focus or in place over the work. For this added steadyness they can and will in general have somewhat higher powers. Fig. I shows "linen testers" items #4 and 5 and tripod magnifier #11. In Fig. II item #2, and Fig. IV illustrate this type of magnifier. Powers in this group vary from 3 to 10 times.

Also in Fig. 1 item #6 has its own illuminating system built-in, an arrangement desirable in cases where it is impossible to get outside light of proper quality. In Fig. 1 #7 and #8 are engravers glasses commonly so called because they are somewhat

(Cantinued on Page 95)

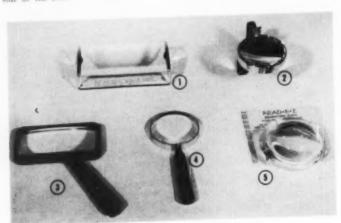


FIG II

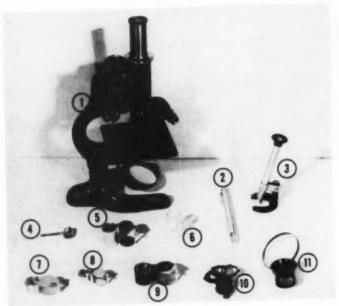


FIG III



FIG. IV



FIG Y

By Theodore Makarius

E are now ready to mount a plate on the cylinder. For the sake of illustration, let us assume that the plate cylinder is undercut twenty-thousandths and our plate is fourteen-thousandths of an inch thick. This means we must build the plate to twenty-two thousandths, including packing sheets, to make the plate two-thousandths above bearers.

As we must set and adjust both rollers and dampers, we will use a blank plate or any plate regardless of image. The plate should be clean on both front and back, and if, as often happens, there is either asphaltum, plate coating or ink on the reverse side, it must be removed. Bear in mind that cleaning the back of the plate is just as important as cleaning the cylinder surface. In both instances, kerosene may be used, and if there is gum arabic present, water should be applied to help remove it. Also, the plate must be entirely free from rust or corrosion. It is good practice to wipe the surface of both plate and cylinder with a little machine oil after cleaning. Be sure to remove any burr or roughness from the edges of the plate before mounting as they may cut or damage the ends of the rollers. This can be done with a file or emery cloth,

The plate with proper packing should be mounted carefully on the plate cylinder and fastened with the clamps. Make sure not to buckle or bulge the plate at either the front or back clamps. The slightest bulge will affect the roller setting. Particular attention must be given to this as even a minute bulge in the plate between clamps may cause poor dampening. The space between

clamps usually has more slack than the area covered by each clamp, and when the clamps are tightened, a scalloped edge forms on the plate. If

(In the first of this series, published in October, Mr. Makarius discussed the approach to a typical press job, giving in detail the mecessary press checking, adjustments, etc. This month he continues with the job through its next steps: mounting the plate, and setting the rollers.—Editor.]

the individual clamps are not placed in the center of their respective spaces before they are fastened to the plate, they will not be able to ride with the side motion of the plate when getting position. On presses that have a bar on which the front plate clamps are fastened, there is less likelihood of scalloping or buckling on the front end of the plate. Since all presses have individual clamps on the back end it is important to center each clamp on its eccentric before fastening it to the plate. When dampening rollers are damaged by this buckling, it is more severe if the dampers have been set to bounce. In other words, when the dampers are set in this manner they drop somewhat into the gap of the cylinder and the high areas of the plate between the clamps depress the dampers so that dry streaks soon show up on the plate. These streaks run around the cylinder and will cause uneven dampening and

The packing sheets should be cut to the exact size of the plate in width but may extend an inch beyond the plate on the front end. It is best to crease the sheets on the front end so that this extra inch of paper folds over the edge of the cylinder and under the plate clamps. It is also best to make up the pack-

ing of several sheets of various thickness rather than to use only one or two sheets. For example, we are going to use eight-thousandths packing and it would therefore be wise to use a five-, a two-, and a onethousandth sheet. The one-thousandth sheet should be placed on the bottom, or against the cylinder and the five-thousandths or heaviest sheet on the top, against the plate. When packing the blanket this method has several advantages; one being that the canvas backing of the blanket may cause sheets to creep or wrinkle and the heavier sheets are less likely to wrinkle than the very thin ones, Another reason for using the very thin sheets or tissue is that when printing fine halftones it is often necessary to reduce pressure slightly in specific areas of the blanket. Sometimes one-thousandth of an inch more or less in pressure may mean the difference between a good or poor reproduction of a halftone.

TANE

Setting Rollers

When the plate is mounted, we next proceed with the setting of the rollers. Since the form rollers are the first to be set, it is important that you can correctly identify each roller. The first form roller is the one nearest to the dampers. The fourth roller is the farthest from the dampers—it is the last one to leave the plate when the press is running. The second roller is the inside form roller at the rear of the roller motion.

We start with the inside back form roller. Before placing the roller in the press it should be laid on wooden blocks, one under each spindle, so that the roller can revolve freely. The surface of the roller should be cleaned and examined for cracks or

pits or any possible damage resulting from handling. Next, the circumference should be checked over its entire length to make sure that there are no low or high spots. This is done best with either regular outside calipers or narrow strips of paper about one-half inch in width and long enough to fit one and one-half times around the roller. The paper should be wrapped around the roller and marked with a fine point pencil where the paper starts to overlap. Starting at one end of the roller and repeating the procedure at short intervals it will be seen readily if the circumference varies. If the variation is greater than one-eighth of an inch in circumference at any one point it will be difficult to get an even setting of the roller. Should the roller be found uneven to this degree it should be reground by the manufacturer.

Now the roller should be tried for trueness. Place the blocks under the spindles up close to the core or body of the roller and place a gauge between the spindle end and table or floor, whichever the roller is resting on. Then revolve the roller to see if the spindle is bent or true and repeat this test on the other spindle. If the spindles are not bent, proceed to check the roller itself. This should be done with the block placed at the extreme ends of the spindles and a small object under the center of the roller, leaving very little clearance; one-quarter of an inch or less should be sufficient. By revolving the roller and watching the point of clearance it can be determined whether or not the roller is true.

Assuming that the rollers are true and even, we will proceed with the settings. Since the rollers must be set to both plate and distributor or rider, the roller sockets are designed to move in an eccentric position with either one or the other. If the roller sockets are so designed that the setting follows the arc of the plate cylinder, the roller must be set to the plate first. In other words, the sockets "telescope" for this setting and once set and locked into position they are not disturbed by setting to the rider. However, if the roller socket cam

tollows the arc of the rider, the first setting should be to the rider. After this has been determined, place the second form roller in its sockets.

Our next step is to cut strips of paper of two-thousandths thickness. These strips should be of both one and two inch widths and about 12 inches long. Be sure that the plate surface and roller are clean and dry, then arrange the strips in sets of three, centering a one inch strip between two two-inch strips. Place the sets of strips between the roller and plate and the roller and rider at equal distances, or about four inches from the ends of the roller. On large presses it is best to use an extra set in the center of the press.

When the strips are placed in position, lower the roller mechanism so that rollers contact the plate. Using the center or narrow strip as a gauge, proceed to adjust the sockets. First raise the roller from the plate until the strip can be drawn easily with the fingers, then lower the socket gradually. The tension on the strip of paper must be great enough to in-

dicate that full contact between the two is being made. The reason for using three strips of paper is to eliminate the possibility of false tension when drawing the strip, which may be due either to tack from the roller or friction from the grain on the plate, or perhaps both. When satisfactory tension is established between plate and roller, check the clearance between roller spindle and socket before locking the socket into position. Sometimes this is overlooked because the weight of the roller keeps it in position to make proper contact. If the clearance between the spindle and socket is more than one-thousandth of an inch, the rollers will bounce excessively in the gap of the cylinder when the press is running. It is good practice therefore, after the roller is set to both rider and plate, to move the cylinder to a position where the roller is in the gap, and place the strip between roller and rider to double-check the setting. If this setting is not checked, the roller may drop away from the rider in the gap of the cylinder.**

The Koloroid Color Proving Process

By Joseph E. Johnston

Consolidated-Hammer Dry Plate & Film Co., St. Louis

THE Koloroid color proving process, first shown at the Chicago Graphic Arts Exposition, is a method of making a full color, ink pigment color proof from separation screen or continuous tone negatives. The process will color prove flat color work, duotone, or four color process, and accurate register can be obtained. Reproductions in color from a postage stamp size to a 44" x 64" poster can be proved. Equipment needed includes a vacuum printing frame, a squeegee roller, a ferrotype, and a hole punch. A four color process proof can be made in less than an hour from separation negatives.

The paper used in the process is an ink impregnated, colloid coated paper which is roller coated to exact thickness. This pigment paper is made in the full range of standard printing ink colors. Koloroid colors are transferred to a water repellent base or proving paper, which accepts the photographic color ink pigment image. Koloroid base paper is furnished with the pigment pager.

Each basic color is controlled by exposure. For example a strong chrome yellow can be cut to a light lemon yellow by reducing the exposure time. A complete color chart is made up by exposure variations with the printing lamp. This is done by setting one strip of each color of the sensitized pigment sheet . . . yellow, red, blue, and black . . . in a vacuum printing frame, and placing over the strips a die cut mask which is furnished in each box of pigment paper. Progressive exposure times are given

by masking off sections of the test strip. After development the results are transferred to the color chart base paper which is coded and spaced and marked for color. This color chart when developed is a complete four color chart with ten different shades for each color. This gives a range of 40 different 100% solid colors . . . shades of black, red, blue and yellow. With this color chart exposure times can be selected to match the inks needed on the job.

Koloroid Color has the same latitude and printing quality as a printing ink and can be called a photographic ink process with control of color value obtained by varying the time of exposure to light.

After selecting the inks from the color chart, let us assume the yellow needed is duplicated by the Koloroid yellow exposed three minutes, red five minutes, blue four minutes, and black six minutes.

Steps in the process are as follows:

- One sheet of each color of the pigment paper is sensitized by placing in a tray for two minutes containing Koloroid sensitizer. The paper is then hung up and dried like film.
- Color separation negatives should be prepared for proper register in proving by punching three holes in each negative.
- 3. When the four sensitized papers are dry, place them in a vacuum printing frame. Place each of the four color separation negatives which have three punched register holes in direct contact with their corresponding colors... the yellow negative on the yellow pigment paper, the red on the red, and so on.
- 4. Expose all four sheets of pigment paper as indicated by the chart. In this example, as outlined above, this would mean that all colors would be exposed three minutes; then the yellow would be blocked out, and the blue, black and red would be exposed one more minute. Then the blue would be blocked out and the black and red would receive one more minute, then the red would be blocked

out and the black would be given one more minute. With this, all of the pigment paper has been exposed the proper time.

5. The inks of the exposed pigment papers are each deposited on a base sheet one at a time... laying one color over the other, developing each color before the other is put on. The yellow is placed on the Koloroid base sheet and developed. The red is superimposed on the yellow and developed. The blue is finally registered on the yellow, red and blue proof and developed. In this manner a four color Koloroid color proof in actual ink pigment colors is made.

To make a four color Koloroid proof takes less than 60 minutes.

The proofs give the color photographer a true reproduction in full ink colors of his color separation negatives. He can do color masking and check his results before the retoucher or color etcher receives the negatives.

The color retoucher and etcher can have a color proof of the separation to compare with the copy.

The new proving process will help color proving on press equipment by making it possible to obtain finished color plates that are more accurately made than ever before, due to the pre-proving in color and accurate correcting that can be made before the work reaches the proof press.

Mail Awards Made by DMAA

A. G. McCormick, Ir. executive vice president of the McCormick-Arm-Wichita strong Co. Kansas shown reviewing his company's direct mail advertising portfolio and the DMAA award certificate which it earned as the "Best of Industry" campaign for the printing industry Mr. McCormick has serv ed as president National Association Photo-Lithographers and secretary of the Printing Industry of America



THE Direct Mail Advertising Association held its 33rd annual conference at the Roosevelt Hotel in New York, October 4-6, when the annual awards for the "Best of All Industry" were presented by Dr. Robert A. Love, who served as chairman of contest judges.

The advertising campaign of the McCormick-Armstrong Co., Wichita, Kansas, under the direction of W. J. Van Wormer, vice president and art director, was adjudged the "Best of Industry" in the printing field.

The advertising campaign of the Western Lithographic Co., Los Angeles, under Henry Isham, was adjudged the "Best of Industry" in the Printers Specialties field. The producer of their campaign was Burroughs, Inc., of Los Angeles, Eric Smith, President.

The direct mail advertising campaign of the Mohawk Paper Mills, Inc., was selected at the "Best of Industry" among paper manufacturers. This was under the supervision of George M. Robinson, advertising manager. Their award-winning campaign included regular mailings of two and four-color reproductions on various Mohawk papers to printers.

In the limited budget awards, Sky Service Corp., Evansville, Ind., was among the award winners. Keller-Crescent Co., Evansville, Ind., were the producers.

TECHNICAL

Dynamics of Ink Film Separation in the Printing Process

By Andries Voet

I M. Huber Corp., Brooklyn*

ESISTANCE to film separation in the printing process is generally identified with the tack of ink. The stresses to which ink and paper are subjected in the printing process at the moment of film separation are not of a static nature, As a result of the speed of the press, ink and paper are forced to respond to rapid and sudden changes in the stress. Thus, an average halftone dot in newspaper printing is separated in a period of time of the order of 10seconds. It is therefore essential to consider the mechanical reactions of ink and paper in the printing process as being of an impact nature.

Reactions to stress at impact differ materially from the stress responses under static conditions. At impact not the maximum stress, but the energy necessary to cause failure is the essential ultimate property. It is therefore of prime importance to determine the energy of separation of ink and paper.

At impact the rate of deformation of the material subjected to stress is very high. Particle inertia, however, will retard the propagation of the deformation, creating a shock wave, which in turn will cause film separation.

The most important characteristic of the material under impact is the energy which the material can absorb before rupture occurs. The evaluation of the rupture energy is essential to the understanding of the process of film separation.

The behavior of paper under impact conditions has been studied by Anderson and Steenberg.¹

The reactions to stress of an ink film under impact conditions differ materially from static stress response. When subjected to stress, the response of any liquid is of a viscous and of an elastic nature. Splitting of ink films will occur nearly exclusively by viscous flow at slow rates of deformation. The liquid ink responds to stress in this manner, since the time element involved is long enough to allow viscous flow to occur.

Upon increasing the rate of film separation, however, the flow response to stress of the liquid, being proportional to the elapsed time, will become less and less pronounced. On the other hand, the elastic response, of an instantaneous nature, becomes more and more important. We may thus expect that at impact, characterized by a very high rate of deformation, the elastic reactions to stress of the ink will completely overflow the viscous reactions. Rupture will occur when the energy absorbed by the film exceeds a critical value, the rupture energy.

We have established a simple and accurate method for the determination of the energy of film separation, based on the loss of potential energy due to film separation of a cylinder rolling on tracks down an inclined plane over an inked plate, and rising again on a second plane, in the pattern of a roller coaster.²

It was found that the tack energy per cm2 of a given surface increases with the film thickness in a complicated manner, but appears to be directly proportioned to the thickness of the transferred part of the film, The tack energy per unit area differs for different types of surfaces, but the tack energy density, defined as the tack energy per unit volume of the transferred film, is independent of the nature of the film. Furthermore, the tack energy density is directly proportional to the rate of film separation and is also proportional to the plastic viscosity of the ink raised to the power 1.5. Finally, the logarithm of the tack energy density is inversely proportional to the absolute temperature.

The hydrodynamics of film separation by viscous flow yields a basically different picture, making it abundantly clear that under the impact conditions of the experiment film separation occurs by a visco-elastic response to stress, in which the elastic component generally overshadows the viscous component, due to the exceedingly

Based on a talk at the annual meeting of the Technical Assn. of the Lithographic Industry, Rochester, N. Y., April, 1950.

small period of time of film separation, generally of the order of 10-4-10-3 seconds.

Film separation, therefore, occurs by a rupture, in a solid pattern. The actual energy necessary to cause the final break, however, is comparatively small. The energy appears to be required predominantly for the process of elongation of the film into filaments, a phenomenon easily observed microscopically.

Direct proof of the predominant elastic nature of the reaction to stress of the ink film was given by ultrarapid photomicrography of separating films. It was observed that at speeds of 500 feet per minute the actual film separation appears as an elastic phenomenon in a period of time of the order of 10-5 seconds.

The molecular nature of the response-to-stress mechanism was actu-

ally found to be a composite motion of molecular chains, including hindered rotations within chains as well as interactions of smaller segments between chains, of a non-equilibrium nature. Direct measurements by Mason⁴ by means of piezo-electric crystals indicate that such reactions to stress, extensively studied in high polymers', actually are found in printing ink vehicles.

Film rupture occurs as a result of the vibrational disturbance in the film, induced by the impact, and propagated as a shock wave. Rupture will occur when the energy absorbed exceeds the rupture energy,

Since the shock wave originates at the point of impact between ink and paper, propagation of the wave occurs both in the ink and in the paper. Rupture, therefore, may occur in the paper, when the rupture energy of

the ink exceeds the rupture energy of the paper. This energy, which is independent of the film thickness, may be determined experimentally under impact conditions on the rolling cylinder tackmeter.

It appears to be possible to predict, on the basis of rupture energy measurements, the maximum paper web velocity as well as the maximum ink viscosity tolerated for film separation without rupture."

References

- 1 O. Anderson and B. Steenberg, Svensk Pappers Tidning, January 15, 1950.

 A. Voet and C. F. Goffken, Rheological Bulletin, October, 1949.
- I. H. Sjodahl, Modern Lithography,
- 17 85 (1949). ⁴ W. P. Mason, Private Communication W. P. Mason, J. Coll. Science 3, 1947
- (1948).

 6 A. Voet and C. F. Goffken, Proc. T.A.P.P.I., February, 1950.

 6 Presented at the second annual meeting of the Technical Association of the Lithographic Industry (TALI) in Rochester, N. Y., Apr. 1062.



From Current Literature in the Graphic Arts

Abstracts of important current articles, patents, and books are com-piled by the Research Department of the Lithographic Technical Foundation, Inc. These abstracts represent statements made by the authors of articles abstracted, and do not express the opinions of the abstactors or of the Research Department. Mimeographed lists have been prepared of (1) Periodicals Abstracted by the Department of Lithographic Research, and (2) Books of interest to Lithographers. Either list may be obtained for 10 cents in coin or U. S. stamps. Address the Lithographic Technical Foundation, Research Dept., Glessner House, 1800 S. Prairie Ave., Chicago 16, Ill.

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Photography, Color Correction

"The Reproduction of Color, Arthur C. Hardy and F. L. Wurzburg, Jr. Inter-elicencial Review 9, No. 1-2, Spring-Sum-mer, 1950, Pages 3-12 (10 pages). This first of three monographs on color begins with a short history of color reproduction. The mezzotints of Le Blau are described and how the present separations derived from James Maxwell's work with primary filters is traced. From this work the halftone separation now used in printthe harmoning evolved. It was obvious months the beginning that color correction would be needed. With the acceptance of the beautiful that the same forms of the color to the same forms. mixture curves in 1931 by the International

Committee on Illumination there is the first attempt to establish limit on color receptance. Hand work is utilized to correct for the shortcomings of the separation negatives. Another means of color correction is the technique of masking. While the results are not perfect color rendering they are a vast improvement over the uncorrected negative. The authors having examined the requirements of the graphic arts processes are attempting to place color reproduction in the printing field on a scientific basis. This article and the following two supplements are a non-mathematical summary of the results of such a program.

*Electronic scanners for color cor-rection. Frank Preucil. National Litho-graphics 57, No. 9, September, 1950, Pages 14-5 and 90-1 (4 pages.) Much of the electronic color corrector has been borrowed from the field of picture transmission. In describing several picture transmitters the author gives a brief historical background of the color scanner.

Herbert P. "Highlight halftones. Paschel. Modern Lithography 18, No. 8, August, 1950, Pages 19-40 (2 pages). A method is described, by means of which highlight drop-outs, or near drop-outs, can be obtained. The process consists of first making a normal halftone negative, from this making a glossy positive enlargement on contrasting paper; the re-touching is done on the print, and the print is then reduced to desired size as a line shot is made.

*Highlight halftones. Herbert P. Paschel. Modern Lithography 18, No. 9 September, 1950, Pages 56-8 and 159 (4 This installment, third in a series pages) on highlight halftones, deals with special copy-preparation drop-out methods. ed uses a patented solution which is applied to tone areas of the copy then treated chemically vielding a yellow color. A highlight exposure is made using a blue filter with halftone screen removed recording only the untouched areas. Another exposure is made with the screen through a yellow filter recording the tone of the copy. Two other patented methods utilize the fluorescence phenomena. The artist uses fluorescent materials in preparing the copy and the photographer using an ultra-violet transmitting filter without the halftone screen makes an extra exposure after having made his regular halftone exposure. Drop-out negatives can be made quite easily and cheaply by using such specially treated copy.

Tone reproduction in halftone negatives. J. A. C. Yule. Modern Lithography 18, No. 9, September, 1950, Pages 61-4 and 135, 137, 139 & 141 (8 pages) Tone reproduction diagrams are useful in detecting halftone distortions and in calculating changes that should be made in any single step if the others are kept step-wise quantitati constant. In a analysis of the effect of a nonimage (flash) exposure and an image exposure a useful tool for research on the shape of the tone reproduction curve is evolved. This analysis is applied to other exposure combinations such as two image exposures with and without the halftone screen. While the calculations and analysis in the article are based on observations on negatives made with the magenta contact screen, they can be easily applied to glass screen negatives. This method of analysis was the basis of a study of contrast and density range in halftone work. From this evolved a means of exposure control, an exposure computer, which allows the prediction of detail exposure. By a slight modification of the computer the flash exposure required for an original of any density range can be calculated. This stepwise analysis opens up the possibilities of investigation of reciprocity failure and developer edge effects

*Chroma-Graph Process. Joseph Brauer. Printing Equipment Engineer 80, No. 4, July, 1950, Pages 27-5 (2 pages). The Chroma-Graph process which produces color saturated separation negatives has been put into production. The process achieves the high degree of color saturation directly by using special high contrast plates developed in a two solution dve-coupling developer. In general the photographic technique is the same as when using the standard materials. Denistometric control is applicable. Some masking and/or hand retouching may be necessary but is usually less than that required in the standard method.

Planographic Printing Processes

The "sachsenplatte" (saxony plate) for offset printing. Graph. Markt. 5, No. 15, May 30, 1950. Page 312, (In German). The plate is a copper plate, deposited by a weak current, covered with a thin chromium deposit. The chromium is removed at the image areas. Printing Abstracts 5, No. 8, August, 1980. Page 389.

Experiences with the EFHA steel plate. P. Benner. Druckspiegel 5, No. 11/12, June, 1950, Pages 254-6 (3 pages), (In German). Hausleiter used the softer metal (brass) as the base plate and nickel as the metal which is exposed to the friction of the machine and he also used a positive print. The printing therefore took place from the etched areas. The preparation of the plate is briefly described. Printing Mistracts 5, No. 8, August, 1950, Pages 389.

Process of coating aluminum plates. Michael H. Bruno and Paul J. Hartsuch. United Nature Patient 2,507,056. Process of coating aluminum plates which are particularly desirable in the process of lithography is disclosed. Coating requires from one to five minutes at room temperatures. The surface of the metal is subjected to the action of an aqueous coating agent having a pH less than 3 but sufficiently high numerically to avoid the evolution of gaseous hydrogen. The agent consists essentially of water, an amount of hydroducric acid stoichiometrically equivalent to 0,25 to 11 grams of gaseous hydrogen fluoride per liter of ammonium dichro-

mate. Amount of hydrofluoric acid is low when that of ammonium dichromate is low and high when the latter is high. Printing Equipment Engineer 80, No. 4, July, 1950, Page 62.

Production of printing formes. C. B. Aller. British Patent 635,582. The sideways etching of the plate is limited by using a sulphide-forming etching agent, the etching of which is restricted by the surface or edge of a coating of zinc or cadmium. Printing Abstracts 5, No. 6, June, 1950, Page 291.

Paper and Ink

Process of printing, Meyercord Company, British Patent 635,747. Printing ink of a type hardenable by sulphur dichloride is exposed to sulphur dichloride vapours, Printing Ibstracts 5, No. 6, June, 1950. Page 263.

Pre-conditioned paper, H. Radford Russell. Pulp and Paper 24, No. 7, June, 1950, Pages 99-100 (2 pages). Paper Mill News 73, No. 22, June 3, 1950, Pages 11, 14 (2 pages). The cycle conditioner is described which was developed by the Everett Pulp and Paper Co. in co-operation with the J. O. Ross Engineering Corp. It consists of a cold chamber and a conditioning chamber with recirculated, high humidity, warm air; the web makes four passes through both units (from the cool to the warm chamber) and leaves the conditioner by way of the cool chamber before being wound in a roll. The paper is usually shipped with 5.5% moisture. I diagram. Bulletin of the Institute of Paper Chemistry 20, No. 11, July, 1950, Page 802.

*Testing moisture content of paper. Charles F. King. Inland Printer 125, No. 6, September, 1950, Pages 73-5 (3 pages). The lithographer is interested in paper stability under pressroom conditions and not in its percent moisture content. Use of the Cambridge Sword and the LTF Paper Hygroscope for determining the paper condition is described.

*Grindometer fundamentals, W. C. Walker and A. C. Zettlemover. American Ink Maker 28, No. 7, July, 1950, Pages 31-4 and 55-7 (6 pages). Data obtained with the NPIRI precision Grindometer have been examined. Little precision can be expected from particle counts. The most reliable value is the average of all available readings, and this value becomes more reliable as the number of readings is increased. Particle counts are not practical for control measurements.

*Tips on offset inks. Oscar Diehl. Lithographers Journal 35, No. 4, July, 1950, Page 7. There are no general instructions concerning ink consistency and requirements. Substances should not be added to inks indiscriminately. The hazards involved in so doing are discussed.

The problem of curl. August S. Erspamer and William D. Rice. Paper Mill News 73, No. 28, Pages 76-8 and 88 (4 pages) July 15, 1950. The authors discuss the different forms of curl (moisture curl, inherent curl, and structural curl), their causes, the way in which they manifest themselves, and methods of correction or, preferably, prevention. The use of various external devices for moisture addition or conditioning seems to receive increasing interest and consideration. Such requirement should be viewed as a last

resort, because it is far more desirable to retain moisture than to replace it. 6 figures and 8 references. Bulletin of the Institute of Paper Chemistry 20, No. 12, August, 1950, Page 880.

Moisture indicator for webs. E. l. DuPont de Nemours and Co. and J. Seney, Official Gazette 634, No. 3, 3 1950, Page 902. United States Patent 2,508,045. A moisture measuring system for travelling webs comprises a pair of conducting members insulated from each other over which the web is passed in suca direct voltage cession, a condenser, source, means connecting the source in series circuit with the condenser and with the members so that the electrical resistance of the web between the members controls the rate of charge of the condenser, means responsive to the condenser voltage to discharge the condenser when its reaches a predetermined value, whereby the condenser repeatedly charges and discharges in a cycle, the frequency of which is a function of the moisture content of the web, the means responsive to the condenser and measuring the frequency.

⁹A method for studying the distribution and sign of static charges on solid materials. Harry H. Hull. Journal of Applied Physics 20, No. 12, December, 1949, Pages 1157-9 (3 pages). A special powder is used to show how static electricity is distributed on materials such as paper. Red particles of this powder are attracted to negatively charged areas. Paper from heat-set printing presses shows streaks of static electricity generated by idling rollers and shifting patterns of static electricity generated in the folder, often with opposite charges on the same sheet of paper. 2 figures and 5 references. Bulletin of the Institute of Paper Chemitry 20, No. 10, June, 1950, Page 745.

Ink users' problems and their solution. P. B. Mennel. Paper Making and Paper Selling 69, No. 1, 1950, Pages 11-13 (3 pages). Some of the major problems encountered by users of printing inks involve piling, powdering, lifting, backing away from the duct roller, offsetting, emulsification, bleeding, picking, and improper drying. These difficulties are discussed with regard to lithography, and remedies are suggested. The storage of offset inks is also mentioned, and it is pointed out that ink stocks should be carefully controlled, since ink which has hardened or gelatinized cannot be remilled to restore to usable condition. The appearance on the litho market of machine coated papers, which are very absorbent and we faced, has necessitated the development of special inks. Bulletin of the Institute of Paper Chemistry, 20, No. 10, June, 1950, Page 738.

Lithography—General

Sheet fed offset printing machine. Sperry Corp. and E. G. Staude. Official Gazette 633, No. 1, April 4, 1950, Page 188. United States Patent 2,502,806. The machine has a cylinder having means thereon for engaging a sheet wrapped circumferentially about the same, means for moving the cylinder through an orbital path with a simulated rolling motion, a second cylinder including means for carrying an inked impression, means for moving the second cylinder through an orbital path with a simulated rolling motion and in the course of which the second cylinder

(Continued on Page 117)



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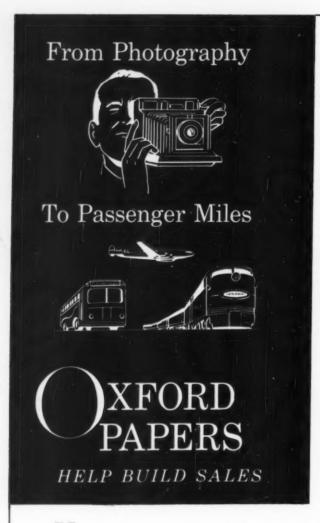
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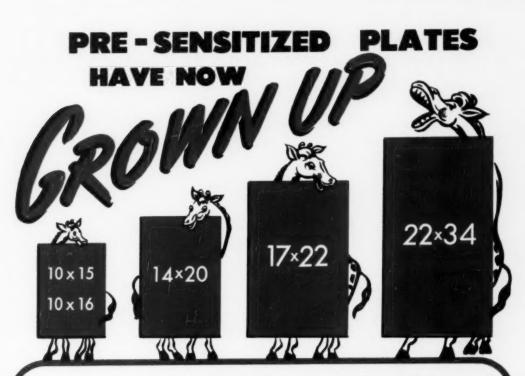
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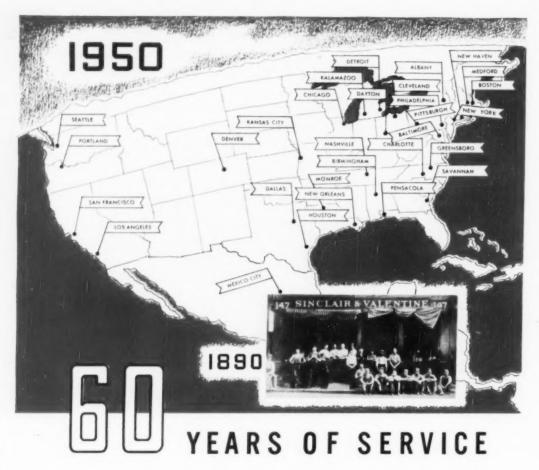
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This insert lithographed with ZEPHYR DFFSET YELLOW No. 464 ZEPHYR DFFSET RED No. 354

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Christmas 1950

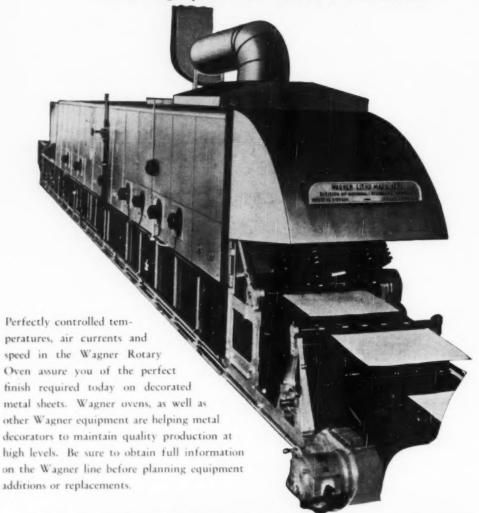
n this mid-century anniversary of the birth of the Prince of Peace, God-fearing people are again called upon to meet the challenge of atheistic tyranny. Through the teach-

father, in whom we put our trust, we will meet this challenge and triumph over those who seek to destroy the spiritual liberty of mankind. Det this is Christmas, the day of days for Christendom—a time for rejoicing and honoring the nativity of our Saviour. Now, more than ever, let us everyone, reaffirm our faith in God and pray to Him to keep us steadfast; to give us strength and courage to meet sacrifices; to guide our leaders in unified statesmanship and unself ish devotion to our country; to comfort those in grief and pain and to bring lasting peace to all the world.

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METAL DECORATING

Research and Development

By John K. Rasmussen

American Can Company

PART I

HE years following World War II have produced an increase in volume and variety of metal decorating that is unmatched by any previous period of similar length. These increases have brought with them a host of new problems that have taxed. and perhaps at times even temporarily overtaxed, the ingenuity of those who are responsible for quality production. Considerable progress has been made toward the solution of some of these problems, but a great deal of work remains to be done before we can close the book on some matters of long standing as well as keep pace with new situations that are sure to arise,

The material shortages of the past decade have forced the rapid adoption of substitutes in the metal decorating industry, and there is a possibility of further material shortages just ahead of us. One such substitution of prime importance has been the use of electrolytic tinplate and blackplate for applications where hot-dipped tinplate was formerly a standard. This greatly increased the quantity of plate that had to be coated with an organic finish since these plates are less resistant to atmospheric corrosion or product attack than is hot-dipped plate.

It was recognized early that electrolytic plate and blackplate were susceptible, on aging, to the development of an oxidized surface condition that was detrimental to the adhesion and fabrication properties of certain types of coatings, notably the lead reactive phenolics. The application of a

Metal Decorating Section

"Modern Lithography" is pleased to introduce this new department on Metal Decorating. Each month articles and news concerning this important segment of the lithographing industry will be published here.

In general the subject matter will be concerned with lithographing and immediately related processes and materials rather than with metal fabricating.

thin film of oil to the surface of the sheets at the mill was found effective in retarding oxide formation. This oil film has to be very closely controlled or the cure may become worse than the disease. Excessive oil application or poor distribution of the correct amount of oil may cause eyeholing, crawling or other characteristics of poor wetting. On the other hand, plate that is too dry may be responsible for poor ink lifting when inks are applied directly to the bare tin. The control of the oil film on plate is very critical and when it is realized that the limits for satisfactory performance are 0.15 to 0.25 grams per base box, the difficulty of good control may be visualized

Adhesion troubles on electrolytic tinplate can arise from sources other than excessive oil or oxide formation. There are indications that the surface plate may at times be covered with a very thin film of a loosely adherent material such as tin from reduced tin

oxide or organic material from the plating bath. In such cases the difficulty is caused by the poor adhesion of the contaminating film to the main body of the plate. Failure of this type occurs more frequently with some types of coatings than with others. These variations may be associated with differences in wetting properties.

How to Test Adhesion

Adhesion difficulties are perhaps most frequently encountered with phenolic type coatings. A simple and fairly accurate method for pre-determining the adhesion of this type coating on a given lot of plate is as follows: Reduce the coating to a viscosity such that when a drop or two is applied to the surface of the plate to be tested it will flow out to a film thickness approximating that which will be used commercially. The piece of plate is then given the regular bake required for the coating used. After cooling, diagonal scratches are made in the coating spot and the adhesion tested with scotch tape. If no indication of poor adhesion is obtained, it is probable that good adhesion will be obtained with that lot of plate when the coating is applied in the usual manner,

A test that may be used to determine the printability of a lot of plain plate with the usual lithograph inks is to immerse the sheet in water. Observe the action of the water immediately after the sheet is with-

Oresented before the annual convention of the National Metal Decorators Asan., Chicago, Sept. 18-20, 1950.

drawn. If it separates immediately into drops and rivulets the sheet will probably print satisfactorily, but if it tends to form a continuous film over the sheet that persists for a second or two, you may expect ink lifting trouble.

The surface condition of tinplate as well as the condition at the plate-coating interface, need intensive investigation. Until we have a better understanding of the basic phenomena involved we cannot hope for a complete solution to problems of wetting and adhesion.

Another development that has been accelerated by shortages is the trend toward the use of synthetics for the preparation of coating materials. Natural resins and oils are becoming of progressively less importance in metal coating formulations. The metal decorator now has a wide selection of synthetic coatings from which he can make a choice for the job at hand. There are, to name a few, alkyds for resistance to outdoor exposure, heat reactive phenolics for solvent resistance and resistance to the effects of thermal processing, vinyls for chemical resistance and deep draw work, and melamines for wet varnishing and resistance to discoloration at high bakes. We do not mean to imply that these materials do not have their drawbacks-they dobut continued improvements are being made. There are available today more flexible phenolics, vinyls with better adhesion, and melamines with better gloss and less objectionable odor than was the case a short while

Shorter Baking Cycle

One benefit to be derived in the future from the use of synthetic coatings will be the shortening of baking cycles. The degree of bake produced in any coating is a function of both time and temperature. The time required to produce a given degree of cure in a fossil resin-natural oil coating can be reduced as the temperature is raised, but there appears to be a minimum time limit below which satisfactory results are not obtained. Some synthetic formulations allow much more latitude. For example, with a heat reactive phenolic

coating the attainment of a given degree of bake may require several hours at 250° F. An equivalent cure can be produced in a few minutes at 450° F. or in a few seconds at 1000° F.

The day of the ten second baking cycle still appears to be a long way off, but for a wide variety of work, baking times of two to three minutes, within the range of present operating temperatures, appear to be entirely possible with coatings and inks that can be produced now. Shortening of the baking time can effect large economies in space and cost on future installations and permit the speed-up of existing equipment.

The adoption of new types of coating materials requires considerable experimentation on the part of the metal decorator. Consider, as an example, the procedures that must be gone through before commercial use can be made of a coating intended as an inside lining for processed food cans. We can omit the preliminaries and assume that the decision has been made to proceed with a trial.

The initial screening will include an evaluation of some of the physical properties of the coating as well as economic considerations. The gallon weight and percent solids of the coating are determined, and from these figures it is possible to calculate the applied cost at the desired film weight. It is important that the percent solids determination be carried out at the baking schedule required for the material to assure that the calculated applied cost figures will approximate those obtained in practice. The solvents used in the coating should be considered for any possible health hazard or harmful effect on glueglycerin or rubber coater rolls. The 'as received' viscosity of the coating is checked as well as the quantity of thinner that is required to bring it to a satisfactory coating viscosity. Any driers or pigments must be examined from the health hazard standpoint. Finally the coating and fabrication characteristics of the material are checked.

Checking Coatings

The initial check of coating and fabrication is usually done on laboratory equipment. The coating is applied with a laboratory size coater on the type or types of plate on which it is intended to be used commercially, and baked at the recommended baking schedule. The coated and baked panel are examined carefully for defects such as eyeholing, crawling, poor flow or poor adhesion, and may be tested for hardness, abrasion resistance or thermoplasticity.

Coating adhesion is a very difficult factor to measure with much exactness. The scotch tape adhesion test probably gives as good a correlation of adhesion properties on the flat sheet to those experienced in fabrication operations as do more elaborate methods. In this test a piece of scotch tape is pressed firmly against the coated sheet and removed with a jerk. The amount of coating that is removed, if any, gives a relative measure of adhesion.

Hardness and abrasion resistance may be measured by the Sward Hardness Rocker and Taber Abraser. Hardness and abrasion or scratch resistance do not necessarily go hand in hand. For example, a phenolic film, which is undoubtedly harder than a vinyl film, has poorer abrasion resistance. This is due probably to the part that toughness as well as hardness plays in abrasion resistance.

The thermoplasticity of a coating is a consideration of importance when coated sheets must be stacked, and also in some fabricating and processing operations. A measure of relative thermoplasticity may be obtained by stacking alternate discs of coated plate and sheets of Kleenex and subjecting the resulting stack to heat and pressure. The degree to which the Kleeney sticks to the coating is a measure of the coating's thermoplasticity. In this test it is important that the trial coating be compared directly with a coating that is known to be satisfactory since no absolute measurement is obtained.

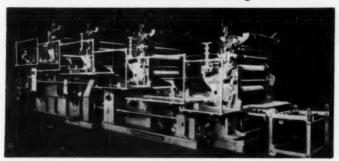
Fabrication Tests

The fabrication tests are normally carried out by forming the coated sheet into container parts. A useful device for checking food can coatings is a punch press die which exaggerates the profile rings normally found on a sanitary can end. If the coating withstands this treatment it will probably be consistently satisfactory on the shallower, larger radius profile rings of an actual can end, even where a less favorable adhesion condition may exist. The coating may also be subjected to more severe fabricating operations such as the drawing of talcum powder breasts, seamless ointment boxes or screw caps. Direct comparisons are made in these tests with other coatings of known fabrication characteristics.

If the test coating successfully runs the gamut of the preceding tests, it is then used in the preparation of

(Continued on Page 94)

First Four-Color Press a Metal Decorating Milestone



NE of the most significant recent developments in metal decorating is the completion and delivery of the first four-color metal decorating press. The first such press, built by R. Hoe & Co., New York, is now in operation at the plant of Heekin Can Co., Cincinnati. Two four-color presses have been built to date, it is understood.

The presses will produce metal lithography more efficiently by allowing straight line production of four colors, a coating operation and baking. Prior to this time two-color presses offered the maximum number of color units.

The new presses take sheets up to 29×36 " and will handle tinplate in weights from the lightest up to 24 gauge. Colors are printed wet, with no drying equipment between units, it is said. As the sheets go through the press they travel down a five precent incline. The press runs at 5,100 sheets per hour.

The industry's first four-color press comes just 28 years after the first two-color metal decorating press appeared. It was delivered to the Tin Decorating Co., Baltimore in 1922. This original press, a Hoe, had two plate cylinders, a common blanket cylinder which was double size, and an impression cylinder which was the same size as the plate cylinders.

The first two-color tandem press, also a Hoe, was first delivered in 1937 to the Oriental Can Co., Tokyo, and a similar press was installed the same year by Advance Metal Lithographing Co., Long Island City, N. Y. These first models were rated at from 3,600 to 4,000 sheets per hour. The present improved models of two-color tandems which are in common use run 5,100 sheets per hour.

J. O. Ross Plans Expansion

Ross Industries Corporation, parent company for J. O. Ross Engineering Corporation, manufacturers of metal decorating ovens and other air processing equipment, has awarded a contract for a plant expansion at Highland Park, N. J., to the H. K. Ferguson Co., industrial engineers and builders.

The project will provide an extension of 75,000 square feet of floor space, part of which will be used for laboratories and offices. A small existing wartime building will be incorporated into the structure.

The new building will be 428 x 181 feet and will have a steel frame and brick exterior walls with a monitor-type roof. It will be equipped with a system of overhead cranes to facilitate handling of materials, and will have interior railroad track facilities for loading and unloading.

The project will cost approximately \$900,000, including equipment, and will be completed in 1951. Frank Grad & Sons,, of Newark, are architects for the building.

Reports Caspers Growth

Caspers Tin Plate Co., Chicago is "the largest independent steel lithographer in the United States," according to a Chicago Daily News financial writer, Phil Hanna. Starting with \$5,000 -capital, the company has grown to a net worth of \$2,700,000, in about 20 years, he stated in reporting on a visit to the Caspers plant at 4100 W. 42nd Place. From 16,000 tons of steel handled in 1929, he said the firm this year will decorate 66,000 tons.

Originally launched to handle tin plate, the company began commercial lithographing on steel in 1929 and a subsidiary, the Lafayette Steel Co., now handles the original operation of dealing in sheets and tin plate.

Clark to Add Oven

J. L. Clark Manufacturing Co., metal decorators, Rockford, Ill., has placed an order for a two zone metal lithographing oven with the J. O. Ross Engineering Corp., New York, the latter firm announced last month.

Continental Advances Snelham

J. S. Snelham, formerly vice president and comptroller, Continental Can Co., has been appointed vice president in charge of finance, a new position.

Tin Hits New High Price

Tin hit the highest price level in 110 years in the New York market Nov. 8 when it reached \$1.63 a pound. In World War II the price was about 52¢.

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ABOUT THE TRADE

TALI to Meet May 7. 8

The Technical Association of the Lithographic Industry will hold its 1951 meeting next May 7 and 8 at the Deshler-Wallick Hotel, Columbus. O., according to announcement by Dr. M. C. Rogers, research director for R. R. Donnelley & Sons Co., Chicago, and president of TALI, Robert F. Reed of the Lithographic Technical Foundation has been placed in charge of program preparations and has started the task of selecting topics and engaging speakers, Dr. Rogers said. Local convention arrangements are being looked after by a Columbus committee headed by J. Homer Winkler, technical advisor of Battelle Memorial Institute, of Columbus.

Aluminum May Be Curbed

The supply of aluminum for nonwar use may be cut as much as 50 percent next year, if a new order is issued which the National Production Authority, Washington, is considering. A 20 percent reduction in cvilian use was looked for in December, with heavier cuts after the first of the year.

Makarius Heads New Group

Theodore Makarius, Pope & Gray, Inc., was elected temporary president of the Practical Lithographers, October 18 at a business meeting which completed the organization of the new group formed to study practical shop problems in lithography. Other temporary officers elected are: Frank Fischer, National Process Co., vice president; Jack Jackson, National Process Co., secretary; and Arthur Fiehn, Meehan-Tooker Co., treasurer. Other business included the completion and approval of the constitution and by-laws.

The next meeting, planned for Nov. 15 at 75 Varick St., New York, 15th Floor, was to be the first of the monthly meetings planned to tackle lithographic problems in all phases of the process. It was scheduled for 6 p.m. and was to run for two hours. No dinners or other social activities are held with the nectings.

Directs Dennison Sales



The appointment of VanBrunt Seaman (above) as vice-president in charge of sales of Dennison & Sons, bank stationers. Iithographers and printers of Long Island City, N. Y., was announced Nov. I by Milton P. Thwaite, president. Mr. Seaman formerly held a similar position with the J. C. Hall Co., lithographers of Pawtucket, R. I. He is vice-chairman of the Bank Stationers. Section of the Lithographers National Association, New York and is a past president of the American Institute of Bank Stationers. Dennison & Sons maintain branch offices and plants in Boston, Philadelphia and Miami.

Wm. J. Keller to Move

William J. Keller, Inc., Buffalo printing and lithographing concern, has announced the purchase of the plant on Clarence Ave. at Kensington Ave., Buffalo, built by the Government and operated during World War II by Uebelhoer Bros.

President Penn R. Watson of the Keller Company said the company will move into its new and larger quarters in the near future. The company has operated at Main and Virginia Sts. for more than 35 years.

The company's expansion program, including the purchase of the build-

ing and the installation of new printing equipment, involves an investment of approximately \$250,000, Mr. Watson said.

"The new plant not only will give us 50% more room to provide for the installation of larger letterpress and lithographic equipment, but will provide greater efficiency through straight-line work flow on one floor level," Mr. Watson said.

The building now occupied by the printing concern is owned by the Niagara Frontier Transit System. The plant the company has just purchased was built and equipped in 1943 at a cost of \$1,117,941 by the Defense Plant Corporation.

The Keller concern purchased the plant from Frank P. Gordon of Boston who bought it, including its machinery and equipment, from the War Assets Administration in 1947 for \$125,000.

Mr. Watson said the new plant will employ about 100, averaging slightly more than at present.

Reynolds Sales \$6,500,000

One of Dayton, Ohio's, oldest printing and lithographing concerns, Reynolds and Reynolds Co., has reported gross sales reached an all-time high of \$6,500,000 in the fiscal year which ended Sept. 30. R. H. Grant, Jr., president of the firm, announced the accomplishment to the company's 60 salesmen during its annual sales convention in Dayton.

The last five fiscal years have seen an average increase of \$500,000 annually in gross, Mr. Grant said.

He added that the reason for the steady half-million dollar increase each year could be attributed to expansion of production facilities and a more aggressive sales program.

Physical plant expansion includes an addition at the Dayton and Celina, O., plants; a new sales building at Detroit; a new building to replace



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RAPID ROLLER COMPANY

RAPPORT, Pres. Federal at 26th Street CHICAGO 16

The Reynolds & Reynolds Co. recently purchased this plant in Los Angeles to supply the states of Arizona, California, Idaho, Oregon, Nevada, Washington, and Utah. Greater floor space of 21,000 square feet gives the new building double the facilities of the former plant.



the one destroyed by fire several months ago at Los Angeles, Cal., and installation of new production equipment.

Some \$600,000 has been set aside to take care of the cost of the expansion program, Mr. Grant said.

EBCo. Appoints Kemp Co.

The William M. Kemp Co. of San Francisco has been appointed West Coast distributor for the Printing Machinery Div., Electric Boat Co., Groton, Conn., in the sale of the 22" x 34" EBCo. offset press. Harold Gegenheimer, EBCo. division manager, stated that this appointment is part of a program of national sales coverage.

The Kemp company has been established on the Pacific Coast for more than 15 years and represents a number of manufacturers of graphic arts machinery and equipment. Both William Kemp and A. D. Severance, the company's sales manager, attended the recent Graphic Arts Exposition in Chicago where they had ample opportunity to watch the press in operation. In addition, Mr. Severance visited EBCo's plant in Groton, Conn., where he became further acquainted with the press and its manufacture.

Distributes Brown Paper

The Western Newspaper Union of Oklahoma City, Oklahoma, has been appointed a distributor in that city and vicinity for L. L. Brown's Linen Ledger, made by the L. L. Brown Paper Co., Adams, Mass.

55 Years With P.M.C.

The Printing Machinery Co., Cincinnati, recently observed a double anniversary when two of the members rounded out a total of 55 years with the company. Lee Augustine, vice president, has been associated with P.M.C. 30 years and M. Hugo Lindberg, eastern manager, 25 years.

Okla. City Co. Adds Press

A Harris 35 x 45" single-color offset press recently was added by Southwestern Stationery & Bank Supply, Oklahoma, City.

Columbus Firm Expands

The Allied Printing & Lithograph Co., Columbus, Ohio, has announced installation of larger offset printing equipment. The company engages in offset printing, color work, office forms, direct mail operations and wedding stationery produced under the copyright trade name of Wedlock.

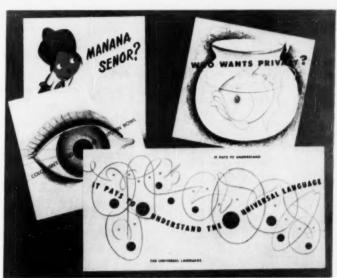
The firm is operated by Lee M. Henne and James C. Henne,

Ideal Shifts McDonough

Ray McDonough, Ideal Roller & Mfg. Co., has been transferred to Cincinnati, where he will assist Ken N. Cramer, manager, according to E. B. Davis, vice president of the Ideal company. The transfer was made to provide greater coverage for Ideal's products in Ohio, Mr. Davis said.

U. S. P. & L. Man Passes

Frank Stapleford, 64, former purchasing agent of the U.S. Printing & Lithograph Co., Cincinnati, died recently of a heart attack at his home near Rushland, Pa.



Universal Printing & Lithograph Co., Los Angeles, recently launched a direct mail campaign, promoting their services. The program was designed along the lines of what a production man would like to know about a lithograph house.

The six pieces that were used were

designed by the art director for Ross Roy, Hollywood, Calif The pieces were run in three colors, all up, on 22×34 offset presses.

The results in increased business have been good, the company reports, and another series of six mailings is under very



Louisiana Heron on the Hunt, photographed by Allan D. Cruickshank

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Apply Fluorescence With Bronzer

A new development in applying fluorescent color has been employed successfully for the first time for General Foods Corp in a run of 100,000 Birds Eye posters, by I. S. Berlin Press, Chicago. Daylight fluorescent Day-Glo colors were applied by a high speed process, employing special bronzing powders. The daylight fluorescent line. Here's where you buy Birds Eye' glows in Fire Orange against contrasting black background. The balance of the poster was lithographed in four conventional colors.

The daylight fluorescent powders are the joint development of Switzer Brothers, Inc. of Cleveland and Lawter Chemicals, Inc. of Chicago. Left to right, above, are S. J. Kukla and J. Sberlin, vice-president and president respectively of J. S. Berlin Press. J. L. Switzer, vice-president of Switzer Brothers, and D. J. Terra, president of

Lawter Chemicals.

The non-fluorescent colors were first lithographed on a four-color press, then the entire sheet was coated with a spirit type overprint varnish A special printing size and the Day-Glo powders then were applied on a specially adapted lithographic press connected directly with a specially modified Christensen

There are essential differences between daylight fluorescent bronzing powders and the screen process materials which have heretofore been the only means of applying the daylight fluorescent colors. Silk screened or bronzed displays will retain fluorescent brightness indefinitely if kept away

Chicago Point-of-Purchase Meet

An informal exhibit of point-ofpurchase advertising material, and a meeting devoted to this phase of advertising was planned for November 15 by the Chicago Federated Advertising Club. The meeting, to be held at the Morrison Hotel, was arranged for the club by the Point-of-Purchase Advertising Institute, New York, through a committee of its from window light. On the other hand, while the screen materials may be employed for 30-day outdoor showings, even in summer, the bronzing powders will for the present be limited to use on displays not required to withstand over 7 days' exposure to direct outdoor sunlight or 14 days' direct sunlight through window glass. It is predicted that if and when wet inks are offered for printing fluorescent colors their limited fastness to light may well restrict their usefulness to indoor applications.

Basic patents have been issued to Switzer Brothers for daylight fluorescent displays and for the principal daylight fluorescent materials, while other patents have been applied for. More than 2,000 silk screeners and printers have already been licensed under such patents. The new bronzing powders are being made available to printers and lithographers under this same licensing system. Day-Glo licenses are insued by Switzer Brothers and by Lawter Chemicals, Inc. as a licensing agent for Switzer and both firms are manufacturing and selling the Day-Glo bronzing powders and special printing sizes.

The bronzing powders are now available in trial quantities and will be in large-scale production in 60 to 90 days, the companies said Colors being offered initially are Neon Red and Fire Orange.

The introduction of the daylight fluorescent bronzing powders rounds out a complete line of Day-Glo materials available for advertising and display purposes, including screen process inks and lacquers, flock, banner sailn, water colors and layout paper.

Chicago members. The speaker was to be Carl V. Haecker, merchandising director of R.C.A.-Victor, on "A Capsule for Successful Selling."

The committee in general charge of arrangements was composed of J. Kingsley Gould, executive director of POPAI; Herbert Zipprodt, Zipprodt, Inc.; and Paul Godell, Arvey

The POPAI also has announced

plans for its annual symposium and exhibit to be held April 3 and 4 at the Waldorf-Astoria Hotel, New York.

Chicago Meeting Manpower Need

The Chicago Lithographers Association, at a meeting Oct, 10, took a step which should ease the minds of employees who may be called to military service. By voluntary action the association decided to extend provisions of the industry health and welfare plan to cover dependents of all married men while in the armed forces. This insures that if a man's wife or children require hospitalization or other medical attention, the association will provide adequate care, such as the employee himself would receive under normal conditions.

Manpower shortages due to the war have not yet become materially important in Chicago litho plants, according to Arthur E. Meding, of Edwards & Deutsch Lithographing Co., and president of the Lithographers Association. As of mid-October only six employees of the association's member companies had been called. However, to anticipate and prepare for future possible effects of the draft, a committee, with Cecil Pickard of Newman - Rudolph Lithographing Co., as chairman, was appointed to work with a committee from Local 4. A. L. A., on a survey of all classifications to determine where and what shortages might occur.

There is a great need for men in several classifications, especially pressmen and process artists, Mr. Meding said. Hope seems rather dim that the union's one to five ratio between apprentices and journeymen can be liberalized, he said. During the last war controlling authorities more or less closed their eyes to the apprentice ratio and employers could do what was necessary in the way of upgrading to keep operating under the manpower shortages.

If the situation requires it, Mr. Meding said, the association is already thinking of establishing a course at the Chicago Lithographic Institute through which an intensive ten weeks of training can be given in needed classifications.



OUT-OF-THE-ORDINARY SUGGESTIONS

Memo and Spirits Card • Men's Store Enclosure
3 Christmas Letters • Toy Store Stuffer
Institutional Christmas Card

and Clip Sheet of attractive Christmas art for your offset paste-ups or letterpress etchings

Get your packet now. See how you can use some pleces with only minor changes . . . other ideas adapt easily.

Cotton-fiber fine papers "by FOX RIVER" fit the holiday feeling of worth and sincerity — yet add but a trifle to the total cost of the job. FOX RIVER PAPER CORPORATION, Appleton, Wisconsin.



Western N. Y. Assn. Elects

Stephen Wylegala of the Broadway Press was elected president of the Printing Industries Association of Western New York at a meeting of the board of directors in Buffalo recently, Other new officers are: secretary, Victor K. Besig, Besig & Co., and Earl S. Hershberger, Statler Press. George E. Strebel was reelected executive vice president.

At the first membership meeting of the fall season in the Park Lane Restaurant, Buffalo, the following directors were elected: Penn R. Watson, Sr., Wm. J. Keller, Inc.; I. Lewis Pollack, William H. Pollack Poster Print; Harold Graser, Rauch & Stoeckl; Mr. Hershberger and Mr. Besig.

Burchard Discusses Offset

Kenneth R. Burchard, American Type Founders Sales Corp., Elizabeth, N. J., addressed 100 persons at the October 16 meeting of the Boston Club of Printing House Craftsmen, at Hotel Gardner.

Mr. Burchard's talk was on "Offset in the Letterpress Plant." Mr. Burchard presented a review of the fundamentals of offset . . . noting that there was a major trend in the direction of offset.

Mr. Burchard's answer to questions stressed the effects which photomechanical techniques are having on the graphic arts.

Paper Man Speaks at Utica

Roger J. Clapp, advertising manager of Linton Brothers Paper Co., Fitchburg, Mass., was guest speaker at the October meeting of the Utica Club of Printing House Craftsmen in Utica, N. Y. Mr. Clapp discussed "Selling in Today's and Tomorrow's Market."

New Vermont Firm

George Little Press, Inc., was recently formed, and purchased the offset department from Champion Printers, Inc., Burlington, Vt. The new company's address is 20 Mechanic St. Incorporators are George E. Little, Jr., Gilda M. Wheel, and Francis P. Peisch,

Changes at Harris-Seybold



Charles W. Harrold, (left) vice president in charge of engineering, Harris-Seybold Co., Cleveland has been elected to the firm's board of directors, and W. R. Spiller, (right) assistant vice president, has been appointed chief engineer, according to an announcement by George S. Dively, president. In making the announcement Mr. Dively said, "Our enlarged engineering and research programs, which have reached an annual million dollar basis, make it advisable to have our top engineering

executive on the board of directors."

Mr. Spiller has been associated with the design of heavy machinery for 28 years—the last 12 with Harris-Seybold. He is an engineering graduate of the University of Pennsylvania His staff includes A B. Woodruff, engineer in charge of offset press development, I. F. Niles, letterpress development, T. H. Johnson, who recently joined the company, heads the special products design group. Howard Pritchard, administration and patents, W. H. Wood, research, and R. I. Haywood, Seybold Division engineering.

Stevenson Photo Elects

Thomas Stevenson was elected president-treasurer of the Stevenson Photo Color Separation Co., Cincinnati, Ohio, at a recent reorganization meeting. He succeeds his father, Thomas Stevenson, Sr., who died recently. William Stevenson, son of the new president, was named vice president. The firm was incorporated in 1926.

U. S. Playing Card Elects

C. E. Albert has been elected chairman of the board of the U. S. Playing Card Co., Cincinnati, succeeding the late Benjamin Rosenthal, who died in New York October 6. Mr. Albert will retain his post as chairman of the company's executive committee.

Edmund Rosenthal, a nephew of the late Mr. Rosenthal, and sales manager of the Russell Playing Card Co., a U. S. Playing Card Co. subsidiary, was elected a vice presiden of the parent company, and Charles H. Waldauer, who has been on the board of the company for many years, was made a member of the executive committee.

During the first nine months of 1950, the company reported net income of \$1,991,708, equal to \$5.17 per share, compared with income of \$1,625,479, or \$4.22 a share, for the same period in 1949.

Turner Appoints Sperling

Turner Printing Mchy., Cleveland, has announced the addition of Robert A. Sperling to its advertising and sales promotion department. Mr. Sperling will work from the home office in Cleveland and will be engaged in the creation and promotion of both domestic and foreign advertising and sales promotion material.

Mr. Sperling was formerly connected with the advertising agency of Dilley, Martin and Hess, Inc., Indianapolis.

Krueger Adds Two-Color

The W. A. Krueger Co., Milwaukee, recently added a Harris 42 x 58" two-color offset press.

Marks Company's 100th Year



Wrightson Christopher (left) vice-president and general manager of Rust Crait Publishers, Boston, chairman of the executive committee of The National Assn. of Greeting Card Publishers, presents an illuminated scroll commemorating the 100th Birthday of the Gibson Art Company, Cincinnati, to Robert E. Stoddard, Gibson's vice-president and manager of sales. Presentation was made at the recent annual meeting of the publisher's association held at the Hotel Plaza, New York.

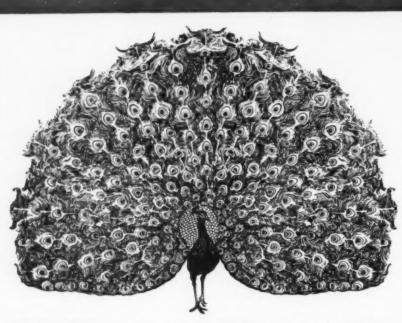
Iowg Firm in Bankruptcy

A receiver has been appointed in bankruptcy proceedings for the Fairall Offset and Printing Co., Muscatine, Iowa.



St. Paul Co. Adds Two-Color

Marking completion of the firm's second expansion program in the last two years, officials and pressroom employees of Tracy Lithographers Inc.. St Paul, Minn. gather for a group picture on the company's new twocolor 35 x 45" Harris offset press. The company was almost 50 years old letterpress-wise when it added several small Harris offset pressos in 1949 From left to right are Frank Steindl, pressroom foreman; Bob Feterson, Harris press erector, Al Johnson, pressman; George Thoren, pressman; Allyn Moore, estimator (above the press); John Wiberg, apprentice: Frank L. Tracy, president, Jim Willis, now Harris Pacific district manager, a native of the Twin Cities: and George S. Tracy, vice president of the company.



PERFECT DOTS AND LINES TELL A MIGHTY FINE TALE!

MARD, clean dots; sharp, fine lines — that's what you, as expert cameramen, like to obtain and pass along to the plate maker.

Clean dots and sharp lines that make up a quality negative — assuring quality plates . . . quality printing . . . and, in the last analysis, customer satisfaction that promotes increased business.

And nothing can help you more, in that important job behind the camera, than Hunt Premium Graph-O-Lith®, the developer that gives quality results.

Have you tried Hunt Premium Graph-O-Lith? If not, you'll find that line and half-tone negatives — on process film, stripping film and paper — developed with this premium formula are absolutely "tops".

You can prove it easily. Just drop us a line on your company letterhead, and we'll gladly send you a two-gallon trial size can of Hunt Premium Graph-O-Lith Developer free.





Established 1909

PHILIP A. HUNT COMPANY

Manufacturing Chemists

MAIN OFFICE: PALISADES PARK, N. J.

CHICAGO, ILL, BROOKLYN, N. Y. CLEVELAND, OHIO DALLAS, TEXAS CAMBRIDGE, MASS.

New Phila. Courses

A new series of courses for executives and administration personnel in offset plants and production staffs in advertising agencies is being planned by Printing Institute, Philadelphia, for the school season starting in 1951. Assisting in the development of these courses are Russell Biller, of Edward Stern & Co.; Walter E. Soderstrom, National Assn. of Photo-Lithographers; Fred Hartman, National Graphic Arts Education Assn., and Richard Caruzzi, author and staff consultant to the Lithographic Technical Foundation.

All classes will be held in the new building now occupied by Printing Institute at 1337 North Broad Street, Philadelphia.

First All-Photo Type House

What is said to be the nation's first completely photographic composition unit is being installed by Typographic Service. Inc., Philadelphia, one of the largest typographers in the country.

The unit will consist of an ATF Hadego for display composition and a Fotosetter for text matter. A third component is the Bruening White-printer for proofing.

Demonstrations of the complete unit are planned for January, according to Samuel A. Dalton, head of the firm. He stated that at present photographic composition is more easily adaptable to the offset-lithographic process.

25 Years With P. & J.

Thomas J. Gorand. purchasing agent for Phillips & Jacobs, graphic arts chemical and supply firm in Philadelphia, recently celebrated 25 years' service with the company, according to Joseph H. Winterburg, general manager.

Phila, Assn. Gets LTF Books

Engelbert Smith, president of the Crescent Ink & Color Co., Philadelphia, recently arranged for a gift of 67 manuals and booklets on technical subjects of the lithographic process, from the Lithographic Technical Foundation to Printing Indus-

tries of Philadelphia, Inc. The texts are available for members' use at the association's office.

Honored on AMS Retirement



William Goldberg (left above) receives scroll from Charles Storey of Army Map Service during a recent dinner in the Capital honoring Mr. Goldberg on his retirement from Army Map Service. A charter member of the Washington Litho Club, he has been in government service for over 37 years. Below (L. to R.) William Pistel, "Jake" Goldberg, and Spud Acker. Mr. Goldberg entered the Industry with Norris Peters, Washington, D. C., in 1911, and entered the government service in 1912 with the Geological Survey. In 1917 he joined the Central Map Plant, later to become the Engineer Reproduction Plant, and the present Army Map Service. He has been a pressroom employee since 1920.



Burnham Joins C. W. Jones

Jerome B. Burnham, formerly with Vulcan Proofing Co., Brooklyn, recently joined the New York sales department of the C. Walker Jones Co., distributors of Moreland rollers. For the last six months, since resigning from Vulcan, Mr. Burnham has been resting in California to regain his health.

Balto. Firm Adds Wing

An addition, providing 11,000 square feet of space, is being erected on the west side of the plant of Publication Press, Inc., 200 N. Bentalou St., Baltimore, Sidney Maleson, superintendent, announced. The addition will allow expansion of facilities. The company produces both offset and letterpress work.

Forms Balto. Consulting Service

Kenneth O. Bitter, Baltimore, has announced an industrial engineering and consulting service specializing in offset lithography and emphasizing service for smaller concerns. Mr. Bitter, a charter member of the Litho Club of Baltimore, has been plant superintendent of Gamse Lithographing Co., during several periods since 1925. He is a graduate engineer of Johns Hopkins University, and offers service in confidential surveys, factory management, controls, costs, methods and processes. He is located at 523 Wilton Road, Towson 4, Md.

Join Lanston Monotype

Three additional trainees recently joined the Lanston Monotype Machine Co., Philadelphia. They are Robert P. Huberty, now in the New York office; John C. Ouderkirk taking the company's factory training course, and Michael H. Turecky, also in training at the factory.

The company also announced the election of three new directors: S. W. Muldowny, George E. Tribble, and Walter Reid Wolf.

N. Y. Firms Add Presses

Recent offset press installations in the New York area, as announced by Harris-Seybold Co. include: Industrial Litho Co., 50 x 72" two-color; Woodrow Offset Corp., 22 x 34" two-color: Holling Press, 22 x 34" single-color; Charles Studio, 17 x 22"; and Printcraft Press, Inc., 21 x 28".

Niagara Lithograph Co., Buffalo, recently added a Harris 50 x 72" single-color.

Baltimore Elects Thompson

Donald A. Thompson, Arthur Thompson & Co., lithographing concern, was re-elected president of the Graphic Arts Assn. of Baltimore, at the annual meeting October 26.

Roebuck Adds Press

H. G. Roebuck & Son, Baltimore, recently added a new EBCo 22 x 34" offset press, its second, H. W. (Buck) Miller reported,

Organize New Detroit Firm

The Rotary Manifold Forms Corp., 330 Beaubine, Detroit, is being organized, and is expected to begin production of offset business forms during December, Frank Hilton is president, Ted Jarosik, vice president, and Mildred Mitrovich is treasurer,

Mr. Hilton, in the graphic arts for many years, was recently sales director for a Detroit firm, and he has specialized in automotive business forms. Mr. Jarosik, who will handle production, formerly was with ATF, and since 1942 has operated his own machinery business. He is president of the Detroit Craftsmen's Club. Mildred Mitrovich has been chief accountant for a Detroit concern.

A web-fed Webendorfer offset press, especially built for the company, is being installed, and the company will specialize in the production of all types of business form printing. The new press is said to be the first of its kind in eastern Michgan.

Honor Progress Executive

Tony Burton, pressroom foreman at the Progressive Lithographing Co., Reading, Ohio, was guest at a surprise birthday dinner while foremen in the plant were en route to the tootball game on Oct. 14 at Lexington, Ky., between the University of Kentucky and Cincinnati. The dinner was staged at the Swan, a Kentucky restaurant.

Advance Adds Plate Equipment

The Advance Litho Plate Co., Cincinnati, recently installed an additional 22 x 34" plate whirler, which was built to company specifications. Other new equipment includes a drier, printing frame and an additional stripping table. The firm specializes in black and white plates, and employs two crews to provide night service for customers.

Sterling Greetings Move

Sterling Greetings, Inc., publishers of greeting cards, Chicago, planned to move shortly from 1142 N. Campbell Ave., to a recently purchased building of modern design at 3931 W. Dickens Ave., where larger quarters will permit more efficient opera-

tions. Most of the company's stocks are produced by Fort Dearborn Litho Co., Chicago, a company executive stated, and distribution is made through chain stores.





Changes at Southworth

Southworth Machine Co., Portland, Me., has announced the advancement of Ray H. Houghton (left) from vice president to president. He succeeds Melville C. Cole who has been named chairman of the board. Mr. Cole recently completed his 42nd year with Southworth. At the same time, the company announced the advancement of Robert Colomy (right) to manager of the Graphic Arts Division.

Paper Co. Wages Up

A voluntary five percent wage increase was granted all hourly employees of Nekoosa-Edwards Paper Company, recently according to an announcement issued by John E. Alexander, president and general manager of the firm.

Over 1,000 at Engravers Meeting

Attendance at the 54th annual convention of the American Photo-engravers Assn., Atlantic City, October 9-11, topped 1,000. Registration was 941, and more than 200 persons were reported as guests who came to view the many exhibits of equipment and supplies. Subjects included electronic color scanning, and dry offset processes.

Duplicator Business Sold

The A. B. Dick Co., Chicago, recently purchased the offset duplicator business of the Lithomat Corp., Cambridge, Mass. William G. Mullen, former officer of Lithomat, joined the Dick company as consultant. A new type of duplicator will be introduced, a Dick spokesman said.

Mich. Company Installs Press

A Harris 22 x 34" offset press recently was added by the Printing Arts Co., Grand Rapids, Mich.

1200 at Screen Process Cincinnati Convention

W 1TH approximately 1,200 in attendance from all sections of the country, the second annual convention of the Screen Process Printing Association, held in the Sheraton-Gibson Hotel, Cincinnati, on Oct. 22-25, was declared by officials to have been one of the most successful graphic arts meetings of the year.

All of the convention talks were devoted to various phases of screen process printing, leading off with the opening session on "Screen Process Selling," with Wilbur A. Smith, president of the Ohio Valley SPPA, presiding.

A feature of the convention was the varied exhibits of 44 supply firms, which filled all available space in the hotel roof garden, where the business sessions were held.

New officers installed at the convention were: president, Herbert O. Sperry, Color Process Co., Philadelphia; vice president, John W. Key, Admiral Screenprint Co., Chicago; secretary and treasurer, John H. Simmons, Chromart Co., Philadelphia, and members of the executive committee, Milton Grant, Silk Screen Process Co., Cleveland; Joseph E. Podgor, Joseph E. Podgor Co., Philadelphia; Joseph Ulano, Ulano Products Co., Brooklyn, and David R. Swormstedt, Signs of the Times, Cincinnati.

The 1951 association convention will be held in the Bellevue-Stratford Hotel, Philadelphia; the 1952 convention in Hotel Sherman, Chicago, and the 1953 convention in Hotel Statler, Boston. Dates for the conventions will be decided later.

It was voted to move the association headquarters from Chicago to Philadelphia, while the employment of a full-time executive secretary was deferred until next year. The highest expression of the papermaker's art

CHAMPION KOTE

Years of Champion research and manufacturing skill have developed Kromekote, acclaimed by printers throughout the world as the highest degree of the papermaker's art. Available through your paper merchant in Label, Litho, Cover, Postcard, Box Wrap and Colorcast.

The Champior



PAPER AND FIBRE COMPANY

The RomeRote Line is Stocked by America's Leading Paper Merchants

BILLINGS, MONTANA. BILLINGS, MONTANA Carpenter Paper Co.
BINGHAMTON, N. Y. Stephens & Co., Inc.
BIRMINGHAM, A.L. The Whitaker Paper Co.
BOSTON, MASS. John Carter & Co., Inc.
The K. E. Tonier Co.* BUFFALO, N. Y. Hubbs and Howe Co.

The Cincinnati Cordage & Paper Co. The Oneen City Paper Co. The Standard Paper Co.
The Whitaker Paper Co.
D. O. The Milleraft Paper C

CLEVELAND, O. COLUMBIA, S. C. Epes-Fitzgerald Paper Co. COLUMBIA, S. C. Epes-Fitsgraid Paper Co.
CONCOBD, N. H. John Carter & Co., Inc.
DALLAS, TEXAS Carpenter Paper Co.
DAYTON, O. The Cincinnati Cordage & Paper Co.
DECATUR, ILL. Becatur Paper House, Inc.
DENYER, COLO. Carpenter Paper Co.
DES MOINES, IOWA. Carpenter Paper Co.
Peatl Paper Co.
Peatl Paper Co.

Pratt Paper Co.
DETROIT, MICH. The Whitaker Paper Co. EL PASO, TEXAS FORT WAYNE, IND. FORT WORTH, TEXAS Carpenter Paper Co. The Millcraft Paper Co. Carpenter Paper Co. GRAND ISLAND, NEBR. GRAND RAPIDS, MICH. Carpenter Paper Co.

HARLINGEN, TEXAS ... HARTFORD, CONN... John Carter & Co., Inc.

HARTORD, CONN. John Carter & Co., Inc.
HOUSTON, TEXAS Carpenter Paper Co.
HUNTINGTON, W. YIRGINIA
The Cincinnati Cordage & Paper Co.
INDIANAPOLIS, IND. Indiana Paper Co., Inc.
JACKSON, MISS. Jackson Paper Co.
JAMESTOWN, N. Y. The Jacksonville Paper Co.
JAMESTOWN, N. Y. The Milleraft Paper Co.
KNOSX CITY, MO. Carpenter Paper Co.
KNOSX VILLE, TENN.

KNOXVILLE, TENN.
The Cincinnati Cordage & Paper Co.
LANCASTER, PENN.
Garrett-Buchanan Co.
LINCOLN, NEBR.
Carpenter Paper Co.
LITTLE ROCK, ARK.
Roach Paper Co. LINCOLN, NEBR.
LITTLE ROCK, ARK.
LOS ANGELES, CALIF.
LOUISVILLE, KY. The Rowland Paper Co., Inc.
LUBBUCK, TEXAS
Carpenter Paper Co.
Tyrios Paper Co.
Tyrios Paper Co. MACON, GA. MEMPHIS, TENN. MERIDIAN, MISS. MIAMI, FLA. Taylor Paper Co. Newell Paper Co. The Everglade Paper Co.

MILWAUKEE, WIS. Dwight Brothers Paper Co. MISSOULA, MONTANA Carpenter Paper Co. MOBILE, ALABAMA The Partin Paper Co. MONTGOMERY, ALA. W. H. Atkinson MONTGOMERY, ALA.

MONTGOMERY, ALA.

Clementa Paper Co.

NEWARK, N. J.

Central Paper Co., Inc.

Henry Lindenmeyr & Sons

NEW OBLEANS, LA. The D and W Paper Co., Inc.

E. C. Palmer & Co., Ltd.

E. C. Palmer & Co., Ltd.

NEW YORK, N. Y. Forest Paper Co., Inc.
Helyoke Coated & Printed Paper Co.*
Henry Lindenmeyr & Sona
A. W. Pohlman Paper Co., Inc.
Reinhold-Gould, Inc.
Royal Paper Corporation
The Whitaker Paper Co.
Charles W. Williams & Co.*

for Export Bulkley, Dunton Paper Co., S. A. Butler Co., Butler American Paper Div. NORFOLK, VA. Epes-Fitagerald Paper Co. OGDEN, UTAH Carpenter Paper Co. OGDEN, UTAH
ORLAHOMA CITY, OKLA. Carpenter Paper Co.
OMAHA, NEBR. Carpenter Paper Co.
ORLANDO, FLA. The Central Paper Go.
ORLANDO, FLA. Peoria Paper House, Inc. PHILADELPHIA, PENN.

Garrett-Buchanan Co. Matthias Paper Corp.* Whiting-Patterson Co., Inc.

PHOENIX, ARIZONA Carpenter Paper Co-PITTSBURGH, PENN. The Whitaker Paper Co-POCATELLO, IDAHO. Carpenter Paper Co-PORTLAND, ORE. Carter, Rice & Co. of Oregon PROVIDENCE, R. I. Juhn Carter & Co., Inc. QUINCY, ILL. Irwin Paper Co. RALEIGH, N. C. Epes-Fitzgerald Paper Co. READING, PENN. Garrett-Buchanan Co. READING, PENN. Garrett-Bushana RICHMOND, VA. Epos-Fitagerald Paper Co. BOCHESTER, N. V. Hubbs and Howe Co. Paper Service, Inc. SACRAMENTO, CALIF. Carpenter Paper Co.

ST. LOUIS, MO. Aeme Paper Co. Shaughnessy-Kniep-Hawe Paper Co. ST. PAUL, MINN. Inter-City Paper Co.
SALF LAKE CITY, UTAH. Carpenter Paper Co.
SAN ANTONIO, TEXAS. Carpenter Paper Co.
SAN FRANCISCO, CALIF. Carpenter Paper Co.
SAVANAH, GA. The Atlantic Paper Co.
SEATTLE, WASH. SAVANSAH, Carter, Rice and Co. SPOKANE, WASH. Spokane Paper&Stationery Co. SPINGFELD, H.L. Capital Gity Paper Co. TALLAHASSEE, F.LA. The Capital Paper Co. TAMPA, FLA.
TOLEDO, O.
TOPEKA, KANSAS
TORONTO, CANADA The Tampa Paper Co.
The Millcraft Paper Co.
Carpenter Paper Co.
Blake Paper Limited

TORONTO, CONTRENTON, N. J.
TULSA, OKLA. Beene Paper Co.
Tayloe Paper Co. of Oklahoma
The Whitaker Paper Co. WICHITA, KANS. Southwest Paper Co. WILMINGTON, DEL. Whiting-Patterson Co., Inc. *Box Wrap and Colorcast only.

PAPERS -

The Champion Paper and Fibre Company

GENERAL OFFICES, HAMILTON, OHIO

MILLS AT HAMILTON, OHIO . . . CANTON, N. C. . . . HOUSTON, TEXAS

Mansfield Heads Graphic Arts Safety Section

PRINTING plant safety directors who gathered in Chicago, Oct, 19, for the third annual meeting of the national Safety Council's printing and publishing section, discussed the prevention of accidents in all branches of the industry.

The cost of printing plant accidents was emphasized by Miss Lillian Stemp, consultant on safety, and former safety director for the W. B. Conkey division of Rand, McNally & Co.

Encouraging evidence that the industry is waking up to the need for attention to accident prevention was seen by M. B. Pittman, safety director of Standard Register Co., Dayton, O., and chairman of the printing and publishing section. Reviewing activities of the past year, Mr. Pittman referred to the support given the movement by Printing Industry of America and the substantial educational service rendered by Modern

New Four-Color at Clifton

A new Harris four-color 50 x 72" offset press is being added to the facilities of the National Process Co., Clifton, N. J. This is the company's fourth four-color press and brings to 16 the total number of presses in the plant.

Offers Press for Idea War

George S. Dively, president of Harris-Seybold Co., Cleveland, has announced that his company has oftered a Harris offset press to the National Committee for a Free Europe, a business-supported group operating anti-communist information agencies.

Speaking at the Chicago Graphic Arts Exposition, Mr. Dively drew attention to the graphic arts industry as a "mover of minds." This ability to move minds, said Mr. Dively, can be used as effectively in selling the ideals of freedom to the world as it has been used in selling merchandise. He also expressed the hope that other businessmen will see the necessity for spreading the truth about democracy and lend support to such groups.

Lithography and other trade publica-

G. Stuart Mansfield, safety and compensation director, Western Printing & Lithographing Co., Pough-keepsie, N.Y., was elected general chairman of the printing and publishing section for the coming year. W. A. Anderson, plant engineer, Government Printing Office, Washington, D.C., was chosen vice chairman and the new secretary is Henry Baerman, safety director, Rand, McNally & Co., Chicago,

Retiring chairman M. B. Pittman, on relinquishing the gavel to Mr. Mansfield, received a framed testimonial recognizing his services in the cause of safety, which was presented in the name of the National Safety Council by Walter W. Smith. safety director, R. R. Donnelley & Sons Co., Chicago. Among the more than 100 persons in attendance at the meeting were several Canadian printers and one from Puerto Rico.

Lord Baltimore Readies Plant

The new plant of Lord Baltimore Press, Baltimore, is progressing, and the company plans to move into it about the end of the year. It is a one-story plant, which will provide about 75 percent more floor area than the company has at present. The project represents an expenditure of about \$1,500,000.

Oxford Elects Chisholm

William H. Chisholm, formerly assistant to the president of the Oxtord Paper Co., New York, has been elected vice president of the company. Mr. Chisholm, who has been associated with the company since 1940 was also elected a director.

Robertson Named "Man of South"

Reuben B. Robertson, chairman of the board of The Champion Paper and Fibre Co., has been elected the "Man of the South," it was announced recently by Hubert F. Lee, editor of the magazine Dixie Business. Plans are now under way for a suitable program to present this award to Mr. Robertson.

IPI Contests Announced

Fred J. Hartman, educational director of the National Graphic Arts Education Association, has announced the 1950-51 IPI essay contest. In the 15th annual competition, \$1190 in cash prizes will be awarded for the best essays on the subject, "You and Color Printing." First prize awards of \$250 each will go for the best essays submitted by a young man and by a young woman.

Deadlines in the contest are as follows: November 30, 1950, for submitting postcard entry blanks; January 15, 1951, for submitting essays; February 14, 1951, for submitting certificate designs.

Further information can be secured from 1P1, 67 West 44th Street, New York 18.

YLA Scans Color Scanning

The making of color separation for reproduction, by electronic scanning methods, was discussed at the November 8 meeting of the Young Lithographers Association by representatives of the two companies which have perfected color scanning machines. The speakers were Charles G. Barkley of Printing Developments, Inc., a subsidiary of Time Inc., and F. L. Wurzburg, manager of the Precision Color Laboratory of Interchemical Corp. The meeting was held at the New York Advertising Club.

The next YLA meeting is scheduled for December 6.

Schlegel Active in New Group

George Schlegel III, president of Schlegel Lithographing Corp., New York, is an active member of the newly formed Young Presidents' Organization. The new group, nationwide in scope, has as its members men who before the age of 39 have become presidents of sizable businesses. Mr. Schlegel, who is 41, heads the firm founded by his great-grandfather in 1841. President of the Young Presidents of Hickok Mfg Co., Rochester, N. Y.



 the low cost, easy-to-install protection that increases printing quality and production

Walton Humidifiers eliminate pressroom slowdowns due to static and poor register caused by curled stock. Walton solves these cost-raising problems by correcting improper humidity conditions — the recognized cause of these difficulties. With Walton Humidifiers on the job

in your plant, proper humidity is maintained at all times. Walton gives you all the important advantages of expensive, complex air conditioning at a fraction of the cost. Check on Walton, now, for proper paper conditioning in your plant . . . resulting in better printing, and faster production at lower cost!

you saw them at the Show

Improve quality and quantity of production by conditioning the air to condition your paper with low cost, high efficiency simplified systems that put an end to dry air troubles. Ask Walton for all the facts, now!

eliminates

CURLED STOCK

POOR REGISTER

PRESS TIE-UPS

due to humidity

variations and static



The completely new illustrated booklet that explains the low cost, simply installed Walton method that improves your production by profecting your stock against humidity changes.

WALTON LABORATORIES

IRVINGTON 11, NEW JERSEY

H. R. D. Gets Improved Press

The first EBCo offset press to be equipped with the new controlled feed roll register has been installed at the new plant of H.R.D. Litho Co., 312 E. 23rd St., New York, according to an announcement by the Printing Machinery Div., Electric Boat Co. The new device makes possible register shifts without touching the plate, and is available as optional equipment on EBCo presses, Harold Gegenheimer, division manager, stated.

H.R.D. Litho, organized in August, as reported earlier, is said to be one of the largest offset plants organized to serve printers, lithographers and brokers exclusively. Equipment includes single- and twocolor presses, and work can be handled from 10 x 12" to 36 x 48". A bindery also is operated. Lewis C. Young, former owner of Graphic Arts Offset Corp., is president of H.R.D., and Herbert H. Berman, former production manager of Graphic Arts, is production manager of H.R.D. Both men have been in the trade many years.

Purchases Hammer Dry Plate

The Hammer Dry Plate & Film Co., 60 year old St. Louis firm, recently was purchased by interests headed by Benjamin Sugarman, president of Consolidated Photo Engravers & Lithographers Equipment Co., Chicago. The company is now known as the Consolidated-Hammer Dry Plate & Film Company with Benjamin Sugarman, president, and R. W. Salzgeber, vice-president. It will be operated as an affiliate of the Consolidated parent company in Chicago.

Champion Report Honored

The annual report of Champion Paper & Fibre Co., Hamilton, Ohio, was awarded top honors in the recent annual awards competition sponsored by Financial World. This is the third such award won by Champion.

Louisville Co. Expands

An expansion of facilities at Gateway Press, Louisville, Ky. recently include a new Harris 22 x 34" press, and a Seybold 40" cutter.

LITHO CLUB NEWS

Litho Club Assn. Meets May 11, 12

Plans for the 1951 meeting of the National Association of Litho Clubs began to roll last month, it was announced by NALC secretary, Wm. O'Holleran of the Meyercord Co., Chicago. The meeting is to be held at the Hotel Cleveland, Cleveland, O., next May 11 and 12, he stated, With NALC president, Edward Harnish, of Boston, and Mr. O'Holleran assisting, all arrangements for the meeting are being developed by a committee from the Cleveland Litho Club. Details will be passed on to NALC members as they are perfected, Mr. O'Holleran promised.

300 at Washington Meeting

About 300, including many out-oftown visitors, attended the October 24 meeting of the Washington Litho Club which was held at Harding Hall, Government Printing Office. The meeting, falling on the eve of the opening of the annual NAPL convention, included a visit to the huge GPO production departments.

Following dinner, served by the GPO cafeteria, Albert Materazzi, Aeronautical Chart Service, retiring president of the Club, presided, and introduced several guests, including Public Printer John J. Deviny, who welcomed the visitors; Charles E. Mallet, Boston, president of the National Assn. of Photo-Lithographers; and Walter E. Soderstrom, executive secretary of that association. Also introduced were Charles Cook, Haynes Lithograph Co., presidentelect of the Washington Club, and Paul Heideke, Washington Planograph Co., past president of the NAPL.

The speaker of the evening was Joseph Ellis, of the U. S. Secret Service, who discussed "How Not to Make Money by Lithography." He displayed several counterfeit bills, some produced by lithography, and explained how they could be detected.

Special interest was shown in some counterfeits which had been produced on a Multilith only two blocks from the White House. Usually this work is done in a legitimate shop by someone who comes in on weekends, or stays at night to work in secret, he said. He urged lithographers to report anything to the Secret Service which aroused their suspicions along this line.

Following Mr. Ellis' talk, the crowd split into groups for the tour of the plant. Lester Eichner, in charge of most offset operations, was one of the guides in that division. The GPO has 15 single-color offset presses, together with camera, platemaking, graining, and other facilities.

The club's next meeting was scheduled for the fourth Tuesday of November at Hotel Burlington, Installation of officers, whose election was reported here last month, is scheduled, and also a movie sponsored by Eastern Air Lines was to be shown.

The club's annual Christmas Party is to be at the Mayflower Hotel, December 8.

Press Night at Cleveland

It was to be offset press and chemical night at the November 2 meeting of the Cleveland Litho Club, with representatives of the Harris-Seybold Co. serving as a panel for discussion. John Morehouse, district manager, was to be moderator. The meeting was to be at the Towne Club, where the Litho Club is meeting at present, since outgrowing former quarters.

The December meeting is to be a Christmas stag party, with election of officers. Douglas Smith, Smith & Setron, heads the club at present. Officers will be installed the first Thursday in January at the regular meeting.

Also in December the club plans to hold a ladies night dinner-dance jointly with the Cleveland Craftsmen at the Allerton Hotel. At the club's October meeting, representatives of the Miehle Printing Press & Mig. Co. served as a panel to discuss offset presses.

These included Charles A. Harwood, Ben L. Sites, Henri Peyrebrune, W. Stewart Grau, Ted C. Schwab.

Herb Johnson, Gilman Co., and a vice president of the National Assn, of Litho Clubs, is chairman of the committee arranging for the NALC annual convention to be held in Cleveland in the spring.

Hear Air Conditioning Talk

The Chicago Litho Club opened its fall educational program at the Congress Hotel, Oct. 26, with an attendance of 55 and a discussion of "Air Conditioning For the Litho Plant," by J. R. Lewis, engineer with the Walton Laboratories, Irvington, N. J. Carl Ericksen, club president, noting the absence of many familiar faces, explained that they were attending the N. A. P-L convention in Washington.

Mr. Lewis, in his talk, dealt with the advantages of air conditioning in litho pressrooms, and the various types of equipment, including his own company's humidifying units, which most club members had seen on display at the Graphic Arts Exposition in September. He also covered costs of operation and answered many questions from the floor.

One comment, coming from a litho artist, mentioned the effects on men in the art room, who have to "sit bundled up in coats or sweaters all day to keep warm enough to work." A proper balance of the humidity, Mr. Lewis explained, would make it more pleasant for the artist at his sit-down job. Press room workers, he said, don't notice the cooling effect because they are moving around.

Three new members were received into the Club and several additional applications were referred to the proper committee for action. Walter Thompson, past president of the Ontario, (Can.) Litho Club, who is attending classes at the Chicago Lithographic Institute this semester, was a guest.



The above advertisement appears in a long list of executive advertising and sales promotion magazines.

This month Rising Intralace is interlaced

in our advertising campaign

RISING HAS A CONSISTENT RECORD of advertising the right kind of papers ... the right way ... at the right time ... in the right publications ... to help printers make the right kind of profitable customer connections.

Once these have been established, printing and paper craftsmanship are blended to keep customers coming back to you. They've had the satisfying proof that your experience and Rising Papers are right for any job requirement they may have.



Milw. Holds Production Panel

A panel on all phases of lithographic production was staged by the Milwaukee Litho Club October 24, with club members discussing stepby-step procedures. William Merrill opened the discussion with a talk on how to lay our a job for the camera, and Robert Phelps discussed cameras and their operation, and also art corrections. Ervin Simmons discussed platemaking, emphasizing the importance of precision register marks and the care of plates.

Frank Hoffman discussed problems of provers, while Peter Brogle and Raymond Petermair spoke on presses and press procedures. The varied discussion was concluded by Steven Karabensh, who talked on bindery work. Ernest S. Blaha, acting secretary, reported that the meeting was one of the most instructive the club has held. Forty members and 16 guests attended.

Another feature of the programs was a discussion of the Chicago Graphic Arts Exposition by Peter Brogle.

The November meeting was to feature representatives of the Miehle Printing Press & Mfg. Co., as speakers. Meetings are held at the Bavarian Gardens, 4815 N. Hopkins St.

Tri-Metal Talk at Twin City

The October 26 meeting of the Twin City Litho Club featured a talk by Dr. Paul Hartsuch on multimetal litho plates. Dr. Hartsuch, who is with International Printing Ink, and formerly was in research work for the Lithographic Technical Foundation, discussed the IPI tri-metal plate. The meeting was held at the Criterion Restaurant. The Minneapolis-St. Paul club planned to hold its annual election in November.

Cincinnati Holds Round-Table

Members of the Cincinnati Litho Club were to stage a round-table discussion of current problems at their monthly dinner meeting in Hotel Sheraton-Gibson on Nov. 14. The annual club Christmas dance will be held on Dec. 2 in the American Legion Hall, 322 Broadway.



At the Baltimore Litho Club meeting, L to R Geo. A. Frank, retiring president: Anthony Capello, Philadelphia, NALC vice vice president, installed officers; who ins. Scott. Baltimore president.

Balto. Elects Arch Scott

W. Arch Scott, Arthur Thompson & Co., was elected and installed as president of the Litho Club of Baltimore at its October 16 meeting, with Anthony Capello of Philadelphia in charge of installation ceremonies. Other officers elected are: Frank J. Denver, Aderafters, Inc., vice president: James T. Keating, Bingham Bros., Co., re-elected secretary; and Elmer H. France, treasurer. The retiring president is George A. (Buck) Frank, Sheet Metal Coating & Litho Co. T. King Smith, free lance artist, is retiring vice president, and Andrew Panuska, Crown Cork & Seal Co., is retiring treasurer.

The following were elected to board membership: Frank Kempf, Neolith Colorcraft: H. W. (Buck) Miller, H. G. Roebuck & Son; Norman Bernhardt, Lord Baltimore Press; Joseph H. Taylor, ATF; and Spencer Parker, Parker Metal Decorating Co.

Mr. Capello, who is first vice president of the National Assn., of Litho Clubs, and who helped in organizing the Litho Clubs in both Philadelphia and Baltimore, installed the officers, and gave an inspirational talk on the value of Litho Clubs to their members and to the industry's progress.

Other business of the evening included the appointment of committees by Mr. Scott. Chairmen are as tollows: constitution and by-laws. Gus Trabing; program, Joseph Taylor; sickness, William Claggett; sports, T. King Smith; publicity, H. W. Miller: membership. Frank Kempt; finance, Albert H. Momberger; and entertainment, Brent Frey.

For the November 20 meeting, Don Thompson, president of Arthur Thompson & Co., will be the "coffee speaker," telling about the work being done by his firm. Also motion pictures of submarine warfare, sponsored by the Printing Machinery Div., Electric Boat Co., will be shown. The club meets at the Park Plaza Hotel.

Other activities included a golf match with the Washington Litho Club, held October 19 at Argyle Country Club, and the annual ladies night and Christmas Party, planned for Saturday, Dec. 16 at the Lord Baltimore Hotel.

New members recently joining the club, are: Theodore M. Schmid, American Bank Stationery Co., Sidney Maleson, Publication Press, Inc.; Kenneth G. Keely, The Glidden Co., Robert B. Poisal, Colonial Offset Co.; Philip L, Conrad, Colonial; Edward D. McEvoy, Rheem Mfg. Co.; and Gordon H. Dalsemer, Lord Baltimore Press.

Ontario Club Hears Art Man

H. Oswald Stacey, art director of R. G. McLean, Ltd., was the speaker at the October 18 meeting of the Ontario Litho Club, held at the King Edward Hotel, Toronto. Mr. Stacev discussed the artist and his relation to lithography. Twenty-two persons attended.

New members of the club are Tom Orr of London, (Ontario) Print and Litho, and Douglas Dyment, Dyment Ltd., Toronto, The club's next meeting was scheduled for November 15.

LITHO CLUB GUIDE

BALTIMORE

J. T. Keating, Sety. Bingham Bros. Co. 125 Colvin St., Baltimore 2. Meets 3cd Monday, Park Plaza

Edw. Harnish, Secy. 109 Mill St., Lexington, Mass.

CHICAGO

Wm. 0. Morgan, Secy.
Chicago Littographing Institute
1800 S. Prairie Are., Chicago 16.
Meets 4th Thursday, Congress Motel.

CINCINNATI

Richard Fischer, Secy. Tre Cincinnati Lithographing C 38 W. McMicken Ave. Meets 2nd Tuesday.

CLEVELAND

Sol D'Altesandro, Sety Horn & Nortis, Int. 2729 Prospect Ave., Cleveland Meetings announced locally.

CONNECTICUT VALLEY

Robert Ervin, Secy. Hubbard, Inc. 1188 Main St. Bridgeport. Conn. Meets 1st Friday, March, May. Sept., Nov., sometimes other months, City Club, Hartford

DALLAS

DAYTON

Edward Bode, Secy. 504 Marjorie Ave. Dayton 3, Ohio Meets 1st Monday.

DETROIT

Erwin Stoetzer, Socy.
Welker Letter Service
G6 E. Forest, Detroit 1, Mich.
Meets 2nd Thurs, at Carl's Chop House.

MILWAUKEE Ernest S. Blaha, Sucy. 2551 N. 7th Lane Milwaukee G. Wis. Meets 4th Tuesday at the Miller Inn.

NEW YORK

Hammond Sullivan, Sexy. 1065 Lorraine Ave. Union, N. J. Meets 4th Wednesday, Building Trade Club

OMAHA

ONTARIO

Norman R. Hurst. Secy. R. G. McLean, Ltd. 26 Lombard St., Toronto, Ont.

PHILADELPHIA

Joseph Winterburg, Secy 622 Race Street, Meets 4th Monday, Poor Richard Club

ROCHESTER

Carl Bigger, Sec'y.
Rochester Offset Plate Corp.
89 Allen St., Rochester.
Meets 2nd Tues., Sheraton

ST. LOUIS

Fred Francis, Sec'y. Comfort Ptp. Co. 200 S. 7th St. Open meetings in Feb., April, June and Aug.

TWIN CITY

Robert Batten, Secy. Lund Press, Inc. 700 S. 4th St., Minneapelis 15 Meets last Thursday of month

WASHINGTON

Fred J. Diegelmann, Secy. PO 80x 952 Benj, Franklin Sta. Washington D. C. Meets 4th Tuesday, Burlington

NAT'L ASS'N. OF LITHO CLUBS Edward Harnish, Pres. 109 Mrll St., Lexington, Mass. Information on the formation of clubs available from Mr. Harnish.

Rochester Hears Evans

Ralph Evans, superintendent in charge of quality control for all color processes, Eastman Kodak Company, was the guest speaker at the October 10th meeting of the Rochester Litho Club, Mr. Evans' address, "Graphic Color Perception," was given before 125 club members and guests. Three aspects of color were considered: the physical, the physiological and the psychological.

The first aspect related to what the phenomenon is; the second described the manner in which color is perceived, and the third, the relation of the two. Mr. Evans' collection of color slides was shown.

Now in its second year, the Rochester Litho Club has featured programs of an educational nature. For the November meeting a panel discussion on ink and paper is planned. A Christmas party is to be held at the Rochester Club December 8tn. At that time Edward W. Harnish, Boston, president of the National Assn. of Litho Clubs, will be on hand to install the club's new officers, and officially welcome the club into the national association.

Glover Speaks at Boston

Harvey Glover, the Sweeney Lithograph Co., Belleville, N. J. addressed the October 18 meeting of the Boston Litho Club, at Hotel Gardner, Boston. Speaking on "Modern Developments in Lithography," Mr. Glover told about the practical and technical problems that have been encountered, and the solutions that have been worked out regarding the interesting work that has been done on cloth, acetates, and other materials, as well as paper in his plant. His talk included other experiences in other litho plants.

A lively question and answer period followed.

Albert Koopman, Rand Avery-Gordon Taylor, club president, announced that beginning in November, Boston Litho Club meetings will be held for at least three months on the second Monday of the month, instead of Wednesdays as in the past. This is a trial procedure.

Frederick W. Messuer, of Eastman Kodak Co., is one of the speakers scheduled for the November 13 meeting of the club. He will talk on new methods, materials, and techniques in photography, and illustrate the talk with slides. A second speaker will come from the Intertype Co., and will discuss the Fotosetter,

Advance notice has been given that the annual club's ladies' night will be held in February, 1951,

Hartsuch at Detroit

Dr. Paul J. Hartsuch, International Printing Ink, was the speaker at the October 12 meeting of the Detroit Litho Club. Dr. Hartsuch discussed the principles of multi-metal litho plates and the IPI tri-metal plate. About 75 attended the meeting, which was held at Carl's Chap House.



Two Firms Install Sconners

Springdale-Time color scanning machines are being installed in two lithographic plants in the Mid-west, according to Charles G. Barkley, of Printing Developments, Inc., subsidiary of Time Inc. Newman-Rudolph Lithographing Co., Chicago, now has a scanner in full time production producing color separations for offset reproduction. Lithograph Studios, St. Louis trade plant, is to install a scanner within two months. Meanwhile two scanners are on display, turning out work for the graphic arts trades, at 270 Park Ave., New York. Mr. Barkley was a speaker at the November 8 meeting of the Young Lithographers Assn. at the New York Advertising Club.

Winship, Lewin to Europe

William Winship, general manager, Brett Lithographing Co., Long Island City, N. Y., and Robert Lewin, of the company's sales department, plan to fly to Europe for a three week's business trip, November 25. Mrs. Lewin also will accompany them. They plan to visit England, France, Germany, Italy and Switzerland.

Discusses Gravure and Offset

"Rotogravure has made considerable progress since its introduction in this country in 1910, but in combination with offset printing, it will produce even better results in the future," declared Robert Mackay, president, Southern Gravure Service, Inc., Louisville, Ky., at a monthly dinner meeting of the Cincinnati Club of Printing House Craftsmen in Hotel Alms on October 10.

Mr. Mackay said that rotogravure had been developed mostly by lithographers, and is now being used for the printing of such specialties as labels, wrappers, waxed paper, cartons and, just recently, cigarette packages. He illustrated his talk with samples of various materials used in the work.

Chicago Students Visit Plants

The Chicago Lithographic Institute's evening classes taking the "General Survey of Lithography" course began their regular series of plant visits last month with trips to the Chicago Planograph Corp., Sherwood Lithograph Co., and Rapid Copy Service. Sixty men are registered for the course, making it necessary to present the subject two evenings a week, with 30 men in each group.

Both large and small plants are selected for the visits. In this way the students become acquainted with practically all the newer techniques in use in Chicago, as well as familiarizing themselves with older procedures. Before completing their course next June, they will have visited a total of 34 Chicago plants.

ATF Opens Swedish Office

Stig Cronstrom has been appointed assistant to Louis E. Pleninger, vice president in charge of foreign sales for American Type Founders Sales Corp., Elizabeth, N. J. Mr. Cronstrom will have charge of a new office in Stockholm under the name of ATF European Service. He was formerly with A.B. Fredr. Wagner of Stockholm.

Oxford Paper Appoints

Oxford Paper Company, New York, has announced the appointment of H. Paul Petzold as assistant mill manager of the Oxford Miami Paper Co., West Carrollton, Ohio. Mr. Petzold, formerly plant engineer, has been associated with the Oxford Miami Paper Co. in that capacity since 1937.

Plate Co. Names Hines

Blue Ridge Color Plate Co., which conducts a complete lithographic plate-making service at 859 N. Orleans St., Chicago, has announced election of James H. Hines as vice president. Mr. Hines was formerly associated with an advertising agency and an engraving business.

Todd Vice President Retires

Charles E. Bradford, vice president, secretary and board member of The Todd Company, Rochester, N. Y., retired recently after 38 years of service with the company. The company's executive committee honored him with a dinner at the Rochester Club,

Brochure Distributed by L.N.A.

A new eight-page brochure is now being distributed by the Lithographers National Association. The first in a series, it is part of the industrywide mailing campaign to printing buyers.

This first brochure points out how color separation negatives prepared for offset reproduction may be used to produce any additional number of advertising, sales promotion and point-of-purchase pieces without further art or negative cost. Size makes no difference as the same negatives can be used for a 24-sheet as for a business card, if desired.

Randolph T. Ode, president of the L.N.A., said that back copies will be mailed to all names received up to the end of this year. Requests should be addressed to Lithographers National Association, 420 Lexington Ave., New York 17, N.Y.

Interest is also being shown in the First Annual Offset Lithographic Awards Competition, to be held next February, for work produced during 1950. Complete information on the competition is contained in the Book of Rules and Information, a copy of which may be obtained from any L.N.A. member, or from the New York or Chicago offices. Each rules book contains entry blanks, shipping labels and entry identification forms.

Chicago Fund Drive Underway

Solicitation of contributions from lithographers to the current Community Fund drive in Chicago is being directed by Cecil Pickard, vice president of Newman-Rudolph Lithographing Co., this year, Co-chairman with him to work among lithographers are Herbert Greaves, president, Stromberg-Allen & Co., Arthur Meding, vice president, Edwards & Deutsch Lithographing Co., and George A. Canary, president, Local 4. Amalgamated Lithographers of America. General chairman of the graphic arts group is George A. Poole, president of Poole Bros., and his co-chairman is Herbert Knight, recently retired head of J. M. Bundscho, Inc., type composition firm, All are serving under Wesley Lunt of Hall Printing Co.



New St. Louis Officers

Recently elected officers of the St Louis Litho Club, are L to R Raymond Benz, Hallenberg Press, Secy-Fred Francis, Comfort Printing Co., VP, and Frank Lederle, Letterhead & Chack Corp., Pres

Phila. Re-Elects Hickey

Joseph Hickey, Lithographic Service Co., was re-elected president of the Philadelphia Litho Club at its monthly meeting October 23 at the Poor Richard Club. Other officers re-elected are Joseph Kneble, National Advertising and Printing, vice president, and Joseph Winterburg, Phillips and Jacobs, secretary.

The treasurer's post will be filled by Andrew Given, National Decalcomania, succeeding John Knellwolf, Alpha Litho, who this year declined the nomination after 11 years' service—since the club's inception. He was thanked by the membership and presented with a rod and reel by President Hickey as a token of esteem and appreciation.

Three members were elected to serve three-year terms on the board of governors. They are: Frank Ferrigno. National Advertising and Printing: Herman Britz, Colorcraft Co., and Russell Johnson, Dupont Company. James Killian, Glenn-Killian Color, an associate member, was named to a one-year term. Retiring board members are Charles Grumbling. Lithographic Service; Warren Troutmann, Colortype; Andrew Given (now treasurer), and George Stevens, associate member, Crescent Ink and Color.

The speaker at the October meeting was Charles Geese, Printing Developments, a Time subsidiary, who is a former Litho Club president, a charter member and still active in the group. He accompanied his talk with movies on the Lithure bimetal process. His speech gave rise to many questions from the floor.

The Fotosetter will be explained and described by Harold Plaut, Intertype Corp., at the club's next meeting, scheduled for November 27 at the Poor Richard Club.

The club's annual Ladies' Night is planned for January 27 at the Bellevue-Stratford.

Conn. Hears Dr. Cramer

Dr. George Cramer, Sinclair & Valentine Co., New York, discussed "Color Matching" at the November 3 meeting of the Connecticut Valley Litho Club, at Hotel Bond, Hartford. Dr. Cramer, a chemical and research specialist, also discussed problems in various kinds of inks and in color matching in the ink plant and in the shop. Another teature of the meeting was the showing of a motion picture sponsored by the Sinclair & Valentine Co.

About 100 attended the meeting. The club's next meeting is to be February 2, when officers are to be elected. The annual ladies night is planned for March 17. Herb Bauer, Kellogg & Bulkeley Co., Hartford, is chairman.

N. Y. Hears Plate Panel

A panel of speakers on multi-metal offset plates featured the October 18 meeting of the New York Litho Club, meeting at the Building Trades Club, Panel members were Dr A. George, Sinclair & Valentine Co.; Harry Muller, Litho Chemical & Supply Co.; Paul Whyzmusis, International Printing Ink; William Newman, Fred'k, H. Levey Co.; and Charles Geese, Printing Developments, Inc., Time subsidiary.

Some of the factors discussed were: The various types of metals and chemicals used in the processing of multimetal plates; the fine grain surface permits the use of finer screen illustrations without distortion; the deletion of copy while plates remain on the press; savings in ink consumption; length of runs ranging from 500,000 to several million impressions from one set of plates; and simplicity with which multi-metal plates can be handled and run.

The following new members were admitted by the club: Saul N. Shaffer, Quaker Press Litho Corp.; Francis Xavier Martocci, Industrial Litho.; Albert C. Gordon, Quaker Press Litho Corp.; Milton Schneider, Daniel Murphy & Co.; and Don Luis Iaccheri, American Colortype Co.

The next meeting will be Tuesday, November 28th.

MASA Holds N.Y. Meeting

The 29th annual convention of Mail Advertising Service Assn., International, met at the Roosevelt Hotel, New York, from September 30 through October 3, 1950.

General convention chairman of the four day program was John J. Patafio, Ambassador Letter Service Co., New York. Program chairman was Robert S. Crawford, Crawford Letter Co., Akron, and the managing director was Felix Tyroler, MASA.

There was general agreement that direct mail volume should benefit under the mobilization program because of increased demand for information concerning price changes, specifications, detense and other phases. However, it was felt that reduced postal service has made direct mail operations more expensive and maintaining effective mailing lists more difficult.

New MASA officers were elected at the convention. Installed on October 2 were: president, H. H. Geddes (R. L. Polk & Son, Detroit); vice president S. Mayer Feldenheimer (C. E. Howe & Co., Phila.); treasurer, John D. Yeck (Graphic Service, Dayton). The Canadian vice president elected was Mrs. W. M. Morrow (Business Letter Service, Toronto).

The photo-offset exchange plaque for 10 x 14 presswork was awarded to James Dooley of Atlantic City. A similar award went to Robert S. Crawford of Akron for larger presses.



IPI · DIVISION OF INTERCHEMICAL CORPORATION · 67 WEST 44th ST., NEW YORK 18 · ADDRESS INQUIRIES DEPT. A

"ELIXIRIN INKS BETTER THAN EVER" SAYS VETERAN NEWARK LITHOGRAPHER

"Unique Lines" Toy Railroad Is Colorful, Realistic Child's Dream Train

Toy makers tell us that color lots of bright, lively color—is a must for any toy to be a success. And for metal toys, colors must also be tough, long lasting, clean printing. That's why Unique Art Manufacturing Company (Newark, N. J.) chose IPI Elixirin Inks for "Unique Lines" toy trains.

Rolling stock of the "Unique Lines" is remarkable for its brilliant, crisp colors, sharpness of printing and attention to big time railroad details. All this adds up to a realism which delights the most critical junior engineer.

These trains are stamped from metal sheets lithographed in as many as eight colors on single color, rotary offset presses. Each color (except the last) is baked immediately after printing. The last color is wet-varnished with A & W Elixirin varnish (made for IPI Elixirin inks), then baked.

The finished toy locomotives and cars have a high, smooth gloss of excellent appearance.

Nick Adenau, supervisor of all Unique Art's top-quality metal decorating, says, "Elixirin inks work better than ever."





FAMOUS HARRIS-SEYBOLD CALENDARS LITHOGRAPHED WITH IPI OFFSET COLORS

RKS Reproductions Of T. M. Cleland Paintings Tribute To Offset Process

If you've wondered who lithographs those highly prized Harris-Seybold calendars and how the job is done—here is the story. Rogers-Kellogg-Stillson, New York City, has produced the entire series with IPI "Press-tested" offset inks on Harris LSK and LTL two-color offset presses. Plate size is 42 x 58 inches. They are run in four colors at 4,500 sph from conventional deep etch plates. Stock is special offset type with dull finish.

T. M. Cleland, prominent American artist who painted the pictures for all Harris-Seybold calendars since 1941, supervises each stage of production. Every plate, proof and color must pass his rigid inspection.

The high calibre of this work is confirmed by the enthusiastic acclaim given the calendars. Respected art critics both here and abroad have classed them as pictorial art of the first order.

WILL THERE BE SHORTAGES OF PRINTING INKS?

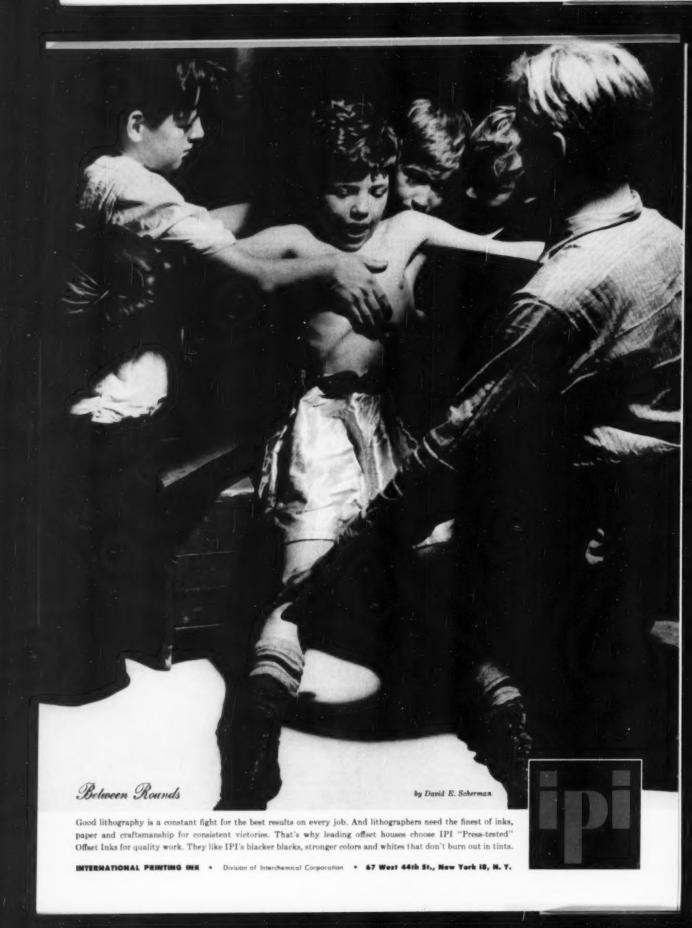
As far as we can see, there will be no shortages of printing inks—colors or blacks. But we are running into difficulties. It's not because of Korea or U. S. defense—although these have aggravated the problems. The chief reason is an unprecedented demand. Why? Warehousing? Hoarding? Fear of rises? Scare buying? We don't know, frankly. There is the same demand for raw materials to make printing inks—producing shortages,

high prices—even black markets in some. Raw material suppliers have been forced to set up voluntary rationing.

Manufacturers of all pigments have been handicapped by long strikes in plants producing alkalis essential to their production. Estimates claim soda ash production down 60%. The strikes are being settled, but their effects will be felt for some time.

Blacks and organic pigments are not critical at the moment. Vehicles—oils and resins—are in good supply or adequate.

We are reasonably sure that we shall be able to meet the demands of our customers—large and small. IPI has based its business on research, working continuously to find new materials and improved formulations. During World War II none of our regular customers suffered unduly. We intend to keep up that record. Which is why it pays to "Keep in Touch with IPI".



EQUIP NEN'T' SUPPLIES, SERVICES, BULLETINS

Cutter Takes 76" Sheets

The E. P. Lawson Co. of New York announced a new cutter, known as Model S2-T-76 Series 'V', which has an enlarged rear table extended to handle paper sizes up to 76". The new cutter operates at 43 strokes per minute and the menufacturer.

claims that the machine is economical to operate. David W. Schulkind, President of Lawson, stated that the new unit eliminates the need to split the lift and then load back into the machine in order to accomodate long sheets.



The machine is an adaptation of the Series "V" Lawson electronic spacer cutter. The new model retains all the essential features of the Lawson spacer cutter and the hydraulic clamp cutter.

Lithographic Technical Foundation. The British treatment differs, according to PATRA, in that it uses solutions containing hydrofluosilicic acid, where the Brunak process solutions contain hydrofluoric acid.

Announce Side Register Control

A new electronic side register control said to maintain automatically and accurately the lateral position of a moving web of material on splitting, re-winding, and other processing machines has been announced by General Electric's Controls Division.

Designed to increase production by stepping up machine speefs and to minimize waste, decrease costs, and provide a more uniform product, the new side register control responds to a signal from a printed line on paper, plastic, or cloth of 1/32-in. minimum width.

Issues Book on Type

"Type Faces and Production Techniques for Creating Effective Advertisements," is the title of an 8½ x 11" book issued early in November by The Milwaukee Journal, Milwaukee, Wis. The book is designed both as a textbook and a working manual. It is a companion book to the Journal's recently issued "Production of R.O.P. Color." The new publication shows a large variety of type faces in many sizes. It sells for \$1.50.

Issue Letterhead Portfolio

The Third Annual Letterhead Portfolio has just been issued by the Whiting-Plover Paper Co., Stevens Point, Wis. It contains sample letterheads and envelopes with various designs, and information on this medium of advertising.

Issue Booklet On Type

"Making Type Behave is the title of a small book of helpful hints for persons who prepare copy or specify type for reproduction, issued by Max M. Gordon, General Composition Co., 470 Atlantic Ave., Boston, Frank B. Morganti, advertising designer, of Boston, is co-author with Mr. Gordon, The booklet has 20 pages, is illustrated, and deals with specific hints on layout, copy preparation, type serection and copy fitting. It is designed to be practical, according to the publishers.

Distribute Booklet on Offset

A booklet entitled, "Past, Present and Future of Offset" written by Harold W. Gegenheimer, division manager of Electric Boat Company's Printing Machinery Division, is being distributed by EBCo's sales promotion department. Mr. Gegenheimer, who is responsible for the design and development of the EBCo 22" x 34" single color offset press, has included in this booklet a discussion of all printing techniques as

well as the complete background and development of offset including sections devoted to metal plates, rubber blankets, water systems and other technical aspects of lithography.

Copies can be obtained from Electric Boat Co., Printing Machinery Division, 445 Park Avenue, New York, N. Y.

Offer Duplicate Embossing Dies

Multiple zinc original embossing dies, made with a step-and-repeat machine, with no original brass die needed, are offered by the Flowers Color Photo Composing Laboratory, 202 East 44 St., New York, according to a recent bulletin of the Lithographers National Assn.

New British Aluminum Proces

A treatment for aluminum litho plates to prevent oxidation, and reduce scumming and other difficulties has been announced by the Printing Packaging and Allied Research Assn. (PATRA) in Britain. The treatment called "Patral", is a development of the Brunak treatment of the

Book Discusses Processes

"A Primer of Engraving and Printing," by the late Harry A. Groesbeck, Jr., was published October 25 by Colton Press., Inc., New York, as a basic text and reference book covering the mechanical and technical elements of graphic reproduction. Emphasis is placed on platemaking and engraving for the three major printing processes—letterpress, lithography and gravure.

A cross-reference subject index

guides the reader directly to the answers to his questions and makes the book handy for reference. The first four chapters explain the theory of reproducing solids and tones by letterpress, lithography and gravure. One chapter each is devoted to the presses and principles of the three major processes.

Other chapters deal with pulp and paper production, and ink characteristics for each printing process. The final chapter helps answer the question: What is the best printing process to use for a given job?

The book is available from Colton Press, Inc., 468 Fourth Ave., New York 16, N. Y., at \$2.50 per copy.

Book on Printing Types

"Printing Types and How to Use Them," Stanley C. Hlasta, Carnegie Institute Press, Distributed by Rutgers Univ. Press, New Brunswick, N. J. 7½ x 10¾", 305 pages, \$7.50.

In addition to historical data on the development of principal type faces the text goes further and discusses the "feeling" of the type, with what sort of products it is used in advertising, or what sort of subjects if it is a book face. For many of the 126 type faces discussed, suggestions are given on their use with other faces for proper type harmony.

Characteristic letters from various type faces are shown with notes on how to distinguish the face.

For the beginner, an introductory section gives definitions and other elementary information.

Mr. Hlasta, formerly assistant head of the Dept. of Printing Management at the Carnegie Institute of Technology, is now production manager of a large commercial printing concern.

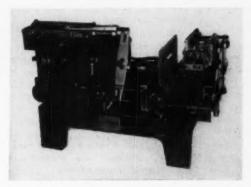
Issue Book on Plates

"How to Make and Run Better Plates" is the title of the latest in the series of textbooks issued by the Lithographic Technical Foundation, 131 East 39 St., New York 16, N. Y. The book, paper bound, is completely new, replacing the earlier bulletin "Improved Desensitization." The new book is priced at \$2.00, with a discount to LTF members.

New Gast Air Motor

A new, larger Gast No. 8 rotaryvane air motor is now in production, the Gast Mfg. Corp. announces. The motor offers the following improvements, the company says: a variablespeed drive, explosion-proof for safety in hazardous locations, and proof against damage when slowed or stalled by overloads. A bulletin, No. AMS24, is available from the company, Benton Harbor, Mich.





The part which the typewritten word has played in the history and development of the United States is as romantic and important as any single factor in our national life. From the time when the first crude typewriter was set up in the midst of a struggling world, typewriting has travelled through the land, as no prophet of old could have done, to sway the hearts and minds of men and help build a nation whose strength and wealth are the envy of the world.

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More Details On Justigraph

Additional details have been announced on the new Justigraph, a device which justifies composition after it has been typed on an ordinary electric typewriter for reproduction. The device has been announced by Wellesley Engravers, Colonial Building, Wellesley, Mass,

Typewriters used in preparing copy to be "Justigraphed" are provided with nubs on the platen roll for positioning the paper accurately, and a punch is mounted on the carriage which cuts a small rectangular control hole in the margin, opposite the end of each line. This is controlled by a small lever which the

typist operates. When an error is made in a line, the control punch hole is omitted and a corrected line is typed. The line containing the error is automatically dropped out in the justifying operation later.

Typed copy is then fed continuously into the first, or negative, unit of the machine, where a mechanism centers each line precisely by shifting the paper through controls operating with the punched holes. A camera photographs each line of copy onto sensitized paper, and it is automatically developed and furnished as a paper negative. This negative then proceeds directly to the positive unit where it is exposed to sensitized paper or film

Top The positive Justigraph unit, which justifies typed material produced on any typewriter. Lower

type specimens

show work as

typed, and (be-

low) reduced and

justified by the

device

to produce a positive on either paper or film. The rate of feed may be controlled for any desired spacing between lines.

Justification is done in the positive unit, by a variable focus of the camera under control of the copy which is used again, synchronized with the negative, A pawl and rachet, in conjunction with the control holes of the copy, cause the lens to move along its axis to focus the unequal length lines (now centered) to equal length in the positive.

As the length of the line is increased, proportionately increased height of letters is prevented by a mechanism which tilts both the copy and negative frames an amount proportional to the lateral movement of the copy in the negative unit, and the lens movement in the positive unit. Since only half of the correction is made in each unit, the angle of tilt is slight, and no distortion results in the positive because the direction of tilt is opposite in the two units. This factor neutralizes all perspective distortion, the makers say. This photographic expansion of lines maintains the original spacing, and original relationship of one letter to another. Effects of line expansion are not noticeable if the change is less than one eighth inch, it is said.

Weber Issues Booklet

Martin J. Weber Studio has issued a booklet explaining the Weber Process of photographic control for graphic arts pictorial production. This booklet illustrates examples of photographs in multiple color line work for special effects. The booklet is available from Martin J. Weber Studio, 171 Madison Avenue, New York 16, N.Y.

Direct Mail Book by Mayer

A new book, "How to Make More Money With Your Direct Mail," by Edward N. Mayer, Jr., president of James Gray, Inc., New York direct mail, lithographing and printing firm, has just been issued. It is published by Funk & Wagnalls Co., 153 East 24 St., New York 10, and priced at \$5.

Harris Issues Report

An annual report for the 1949-'50 fiscal year, just issued by the Harris-Seybold Co., Cleveland, has as its theme "Printing is the Service Industry for all Industry," and copy points out the role printing plays in such diversified fields as manufacturing, retailing, finance, transportation, communications, services, government, agriculture, etc. The cover of the report is lithographed in full color. The single illustration, a typical small

town "Main Street" bleeds on both front and back covers. Center of interest is a statue of Ben Franklin.

Net sales for the year ending June 30, 1950 were \$18,359,275 compared to \$20,507,039 for the previous year. Net income was \$2,019,467 for the recent year, and \$2,270,615 for the previous period.

At the same time it was announced that the Harris-Seybold annual report for the prior fiscal year received one of the "Best of Industry" awards in the annual survey by Financial World.

New Chemical Scales

New chemical scales having a graduated beam with sliding weight, and marked for both avoirdupois and metric systems, have been announced by Eastman Kodak Co., Rochester. In avoirdupois the markings run from 1 to 75 grains, and in metric from 1 to 50 decigrams. Extra weights are provided for weighing larger amounts.

20 Years With Lawson

Charles M. Andrews, vice president of the E. P. Lawson Co., New York, recently completed 20 years with that company.

The Lawson Co, held a party at their New York headquarters to celebrate the occasion. W. J. Hourigan, treasurer of the company, acted as toastmaster at the celebration, and read a congratulatory telegram from David W. Schulkind, president of Lawson, who was unable to attend.

Mr. Andrews started with Lawson as an office boy, having learned of the position through the employment agency for whom he was then working. During the next three years, he learned the business from the inside, after which he spent the next 17 years representing Lawson in the sale of cutters and other bindery equipment.

Transport Advertising Brochure

An illustrated brochure titled "Copy, Design and Production for Transportation Advertising" has just been issued by the National Assn., of Transportation Advertising, 30 Rockefeller Plaza, New York 20, N. Y. It was written by Philip J. Everest, managing director of NATA.

Offer Fluorescent Papers

A line of fluorescent papers, under the trade name "Velva-Glo", suitable for offset work, is now available from two firms: Radiant Color Co., 733–26 St., Oakland, Calif., and James A. Norris Co., 392 Bleecker St., New York 14, N. Y. The papers come in various colors, but are not available in white.



NATIONAL STEEL & COPPER PLATE COMPANY

700 S. Clinton St. CHICAGO 7, ILL.

653 Tenth Avenue NEW YORK 19, N. Y.

Suppliers of Copper, Zinc, Chemicals and Equipment to the Graphic Arts for the past 49 years.

New Robertson Overhead Camera

The R. R. Robertson Co., Chicago,
has announced
a new Robertson
31" overhead
color precision
camera, shown
here at the
Graphic Arts Exposition. According to the company, the camera
is of all-metal
construction and
uses cast aluminum or iron parts

where practicable and permissible. The copy holder is of all cast construction with glass cover and pressure type insert holding up to a 40 x 50" copy. Positive capacity of bars is from a 35 mm Kodachrome with a 2 x 2" card-board mask up to 30 x 40". Three-point composing or register bars cover



the range of 5 x 7" to 28 x 34".

The company also announced the new Robertson diaphragm control, a mechanical electronic device for automatically selecting and controlling the lens diaphragm opening, commonly known as F stops. This device goes under the trade name of Iritrol.

Portfolio of Holiday Ideas

A portfolio of ideas for Christmas and holiday printed specialties was distributed to the trade last month by Fox River Paper Corp., Appleton, Wis. They are available to lithographers through Fox River paper merchants,

New Gevaert Price List

A new revised price list, showing the complete line of Gevaert sensitized photographic products, has just been issued by The Gevaert Company of America, Inc., 423 West 55th Street, New York 19, N.Y. The new price list has been corrected as of October 9, 1950, and reflects slight increases in some of the products.

Promote Rag Bond Envelopes

A cooperative promotion campaign for rag bond envelopes has just been released by 13 rag content bond mills and their envelope converter, the United States Envelope Co.

The program is to present, through the paper and printing trades, to the consumers of the rag bond envelopes throughout the country, the characteristics to be found in these envelopes due to the use of a new seal flap gum known as Grip-Quik. This gum is the product of the United States Envelope Company's laboratory,

A demonstration is provided in

sample portfolios being distributed this month by the agents of the 13 mills. More than 50,000 portfolios are being distributed throughout the country. The mills in the campaign are: American Writing Paper Corp., Brightwater Paper Co., L. L. Brown Paper Co., Crocker-McElwain Co., W. C. Hamilton & Sons, Keith Paper Co., Millers Falls Paper Co., Neenah Paper Co., Parsons Paper Co., Valley Paper Co., Byron Weston Co., Whiting & Co., and Whiting-Plover Co.

New Machine For Forms

The Ralph C. Coxhead Corp. 720 Frelinghuysen Ave., Newark, N. J., makers of Vari-Typer, has announced a new development in the "cold-type" process. The new machine rules fine lines and leader lines for form work and "sets" the copy for it in the same operation.

The machine rules single or double lines and provides leader lines in dots or dashes. A push button automatically inscribes the line to any desired length and automatically cuts off at the pre-determined length. In this fashion both left and right margins are justified.

The spacing between lines is variable to any width in the printers' leading system. Vertical lines are achieved by turning the paper sideways.

Bulletin Describes Motors

Bulletin B-302 describing 1/6 to 3 H.P. continuous-duty, varying-speed motors has just been issued by Star-Kimble Motor Division of Miehle Printing Press and Mfg. Company, Bloomfield, N. J. This bulletin contains illustrations of these motors and of the different speed and operating remote controls, as well as data on current consumption at varying speeds.

Folders Describe Paper Drills

Pocket-size folders are available from Lassco Products, Inc., 485 Hague St., Rochester 6, N. Y. describing the company's floor model and bench model paper drills, and bench model corner rounder.



Filtered Light Unit

The Escolor rotary fixture, for fluorescent lighting of copy, is being offered by Electric Supply Corp. 701 W. Jackson Blyd., Chicago 6, Ill. The unit shown here has the lighting tubes in place, but the filters are removed Filters placed over the lights provide controlled light for color separations without conventional filters on the camera. A descriptive folder is available from the company.

METAL DECORATING

(Continued from Page 65)

test cans that are packed with products of the type with which the coating is intended to be used. These initial packs are usually made in the laboratory under conditions somewhat more severe than exist in commercial practice. Representative products packed in these tests are ground pork or ground fish for testing a meat can enamel, cream style corn for an enamel intended for sulphur bearing vegetables, and red sour cherries for an enamel to be used for fruits. Pears, which are very sensitive to contamination by foreign flavors, are packed to detect any off-taste which the coating may impart.

The cans from the foregoing packs are not stored, but are examined shortly after packing. Careful observations are made of any defects that may have occured during processing, such as softening, loss of adhesion, blistering, discoloration or fracture.

If the coating is still in good repute, a more extensive pack test with a variety of suitable products, is made. Those packs usually are made in a commercial cannery, using standard canning procedures. Sufficient cans are included to permit periodic examination over a period of at least two years. These examinations include evaluation of the coating performance, product quality, and an estimate of expected service life. Usually storage is made at normal room temperature and 100°F. The high temperature storage accelerates enamel failure and can materially shorten the time required for a final decision on the merits of the coating.

The time elapsed from the initial tests on the coating to final acceptance, is three to four years under normal conditions. This may appear to be an inordinately long time, but the procedure outlined must be substantially followed if complete assurance of satisfactory performance is to be had. The economic consequences of a serious failure can be so severe that nothing less can be tolerated.

(In Part 2 of this article, the author discusses tests for non-food products, new equipment, control instruments, and new plates.—Editor.) 42

NAPL CONVENTION

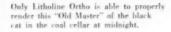
(Continued from Page 35)

things as specially made papers for offset, improved offset blankets, the deep etch process, improved albumen plates, ways of coping with high humidity and temperature changes, compiling of dependable information on air conditioning, improved desensitizers, register rule for precision checking of register, precision inktesting equipment, and others. LTF is unique in the graphic arts, he said, in having enjoyed the close cooperation and support of suppliers and plants doing research for over 25 years. It is one of the broadest examples of cooperation and coordination in existence.

"The next time you pick up a Baume' hydrometer or a pH testing device, ask yourself if you want to go back to the saliva test, or spitting tobacco juice in the water fountain—and remember that these are two examples of modern controls developed by LTF," Mr. Brinkman concluded.



Midnight Collar





DRTHO

Only Litholine Ortho has that extra density, that ability to hold the most delicate highlight dots without sacrificing the shadow dots, the freedom from fog, the wide latitude.

The GEVAERT COMPANY of AMERICA, Inc.

423 West 55th Street, New York 19, N. Y. In Canada: Gevoert (Canada) Ltd., Toronto, Ont.

Fluorescent Offset Work

A late addition to the program brought Dan Terra, president of Lawter Chemicals, Inc., Chicago, to the rostrum to discuss the newest type of lithography-with daylight fluorescent pigments. He displayed a large lithographed streamer on which daylight fluorescent color had been added with a standard bronzing machine. The job, produced by I. S. Berlin Press, Chicago, for Bird's Eye food, is the first such job to be produced, he said. Up to now fluorescent colors have been applied to posters, and other types of work by the screen process, even though regular colors may have been lithographed. (This job is discussed elsewhere in this magazine as a news story (Pg. 71). The general subject of fluorescent lithography will be discussed in an article in a coming issue.)

Trade Customs

John A. Bresnahan, Washington attorney, discussed trade customs, which he defined as usages or rules of conduct so widely known and recognized that they can be enforced in courts of law. They are not arbitrarily written by a trade association or other group, but can come into being only through years of usage. He reported on a recent case involving the reproduction of colored copy in which the lithographer was sustained. (Duenewald Printing Corp., reported in ML, Aug., 1950, Pg. 75) Mr. Bresnahan reviewed the NAPL trade customs which are in common use, and pointed out recent revisions made to bring them into line with current custom.

Equipment Panel

A panel of representatives of equipment firms concluded the Friday program with a series of discussions of new products and refinements currently being offered. Members of the panel were Harold Gegenheimer, Printing Machinery Div., Electric Boat Co.; Stuart E. Arnett, Harris-Seybold Co.; Russell Miles, E. O. Vandercook, Inc.; Fred Hacker, American Type Founders; Charles Kaiser, Miehle Printing Press & Mig. Co.; V. R. Stafford, R. Hoe & Co.; and David Schulkind, E. P. Lawson Co.

Lithe Club Session

The entire Saturday session was conducted by the Washington Litho Club, in cooperation with the National Assn. of Litho Clubs. Albert Materazzi, Aeronautical Chart Service, and president of the Washington Litho Club, was moderator of the question and answer technical session. The meeting room was full during most of the session, with some 250 or more in attendance.

Panel members were Joseph Mazzaferri, Colorcraft Co., Philadelphia; Robert F. Reed, Lithographic Technical Foundation, Chicago; George Hammer, Forbes Lithograph Mfg. Co., Boston; Michael H. Bruno, LTF; Frank England, Duenewald Printing Corp., New York; A.D. ("Pat") Kirkpatrick, Rapid Roller Co.; Harold Dethlefsen, Process Color Plate Co., Chicago; Samuel Sachs, Coast & Geodetic Survey, Washington; and Walter A. Kaiser, Edward Stern & Co., Philadelphia.

In addition to the regular technical questions, two prepared talks were given on special subjects. Charles Spooner, Army Map Service, discussed lithographed vinyl maps which are molded to three-dimensional contour. Robert E. Rossell, Engineer Research & Development Laboratories, Fort Belvoir, Va., gave a report of recent developments, with emphasis on photo-typesetting. He discussed, and showed slides of the Fotosetter, AFT-Hadego compositor, Rotofoto, Lithomat, Linofilm, Justowriter, and Lithotype. Mr. Rossell then discussed new presensitized plates, Xerography, improved process lenses, new offset paper with pigmented surface, new electrical discharge flash tubes as light sources, new cameras developed for air transport and other mobile work, and other subjects.

Ladies' Program

An extensive program of activities was arranged for ladies attending the convention. Busses were chartered at various times for trips which included a drive to Mount Vernon, Va., public buildings in Washington, and points of interest in nearby Arlington and Alexandria, Va. A cocktail and bridge party was held, and also a doll and hat-making contest provided

a festive session with several NAPL officials taking part. Mrs. Merle Schaff of Philadephia was hostess, and judges for the contests were Mi. Fay, new NAPL president, Frank W. Mauro of the NAPL staff, and William J. Stevens, former NAPL secretary, now with the Miehle Printing Press & Míg. Co.**

MAGNIFIERS

(Continued from Page 46)

favored by these workers, who require both hands free. In Fig. II item 2 also has its own horseshoe base or stand and will allow the worker to keep both hands free to work without holding the lens in position over the work. Item 5 in Fig. II is a solid or contact reader not too useful because of poor lighting restrictions, limited powers and corrections available in this type of magnifier. Item 1 in Fig. II is a cylindrical reader not suitable for any work in lithography but which some people insist on using for reading. These cylinders distort the image along one axis, making the object seem higher without being broader. It gives a poor idea of the work.

Fig. III item #10 is a pocket magnifier of the "simple" lens type in which the lenses fold into the cover. These come in various single powers and combinations of powers. Ideal for pocket use both in the shop and out with the sales force. Fig. III item 11 is the familiar eye loupe obtainable in both simple and corrected lens forms, and good for general shop use (powers 2 to 10 times.) For convenience, the wire spring holds this lens in place over the eye. A spring clip is also obtainable to hold these loupes onto your regular eyeglasses.

Now all the magnifiers we have considered thus far have been "uncorrected" and will give good clear undistorted images only if the powers used are not too high. They are useful in ordinary work where cost of the lens is the most important

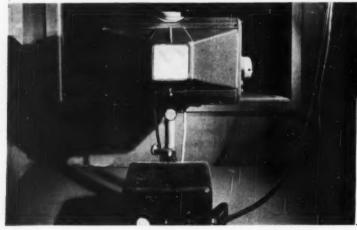
We now come to the second category of magnifiers which can truly



"For clear, sharp detail, 'National' carbons are tops!"

Vincent P. Hauck

BRETT LITHIGRAPHING CO., 47-97 Pearson Place, Lond Island City, N. 3





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NATIONAL CARBON DIVISION UNION CARBIDE AND CARBON CORPORATION

50 East 42nd Street, New York 17, N.Y.

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be called microscopes. They differ from those already discussed in that they are corrected, usually for astigmatism or flatness of field. Called doublets, these usually are made of two lenses used together, illustrated in Fig. III by #4 and #5 and #9. Powers possible with these are from 6 to 14 times (#4). They are used like those above except that greater care must be exercised to hold them steady. This can best be done by holding the magnifier in between the thumb and first finger while resting the 3rd and smaller fingers against the work. Because the powers are higher the lens openings are smaller and the eye must be held close to the glass. It goes without saying that this lens must be held very close to the work if anything is to be seen. Because of the shorter tocal-length of these higher-powered magnifiers their working distances are very small indeed, and the real field (area) is limited. Prices vary from \$4.00 to \$6,00 in this group.

If still better image quality is needed magnifiers corrected for color as well as astigmatism are obtainable. In Fig. III items #7 and #8 illustrate Hastings Triplet types which as the name implies use three lenses cemented together to give the very finest correction. Using these triplets the eye must be held exactly over the center of the lens and as close to it as possible. Then the object should be brought to focus by moving it close to the lens and held steady there. Fig. 5 shows these triplets mounted especially for the lithographer. The lenses are triplets giving the most exacting images and the finest results optically obtainable. The mounting is of finest transparent acidproof Lucite. The lens is mounted in a sleeve sliding into the lower support which is cut away to allow access to the work as well as giving added light to the object area. The lens is adjusted for focus by sliding it in its focusing sleeve while resting the support on the work. Once adjusted both hands are left free while the image always is kept sharply in focus. All these achromatic lenses have a very short depth-of-field.

Pictured in Fig. III, item 2 is a pocket microscope which is obtainable in either of two powers, 20x and/or 40x. While the image seen with this microscope is inverted so that the user must learn his way around when first using this instrument, the quality of the image is excellent. For fine line or dot work as well as screen work of all types this is an ideal instrument. Several thousand are in use in the New York

area. Fig. 111 #3 shows this same 'scope with a simple stand to hold the instrument upright exactly over the work. This pocket microscope without the stand is the best allaround instrument for general shop use where "high-power" is really a necessity. Cost about \$3.00. Remember the "real field" will only be about 14 inch in diameter and that there is little if any depth of field. The instrument is simple to use, the objective end is placed in contact with the

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A MODERN VERSION OF A GOOD LITHO INK.

Streamlined for faster presses.

PRESS READY	To Save Time
	To Improve Your Service
	To Backup Instantly
PRESS STABLE	To Save Washups
DENSER BLACKS	To Meet the Demand
STRONGER AND MO	ORE BRILLIANT COLORS



CLASSES IN COLOR MATCHING

Two classes annually. Instruction in Speedy and Accurate Color Matching from a simple range of stock colors.

OPEN TO PRESSROOM KEYMEN



Lawson Multiple Head Drill Slotter

DRILLS and SLOTS

in one operation

DRILLS A 2" LIFT IN ABOUT 2 SECONDS ROUND OR SLOT HOLES

casy operation! Iron table in fixed position. Touch of treadle brings drills down to the work. Heads easily adjusted for centers. Spindles readily adjusted vertically. Screw operated back gauge assures squareness. Chips automatically carried to waste box. Built-in floodlight illuminates heads and gauges.

E. P. LAWSON CO.

Main Office: 426 West 33rd Street, New York

BOSTON CHICAGO PHILADELPHIA

178 Summer St. 628 S. Dearborn St. Bourse Building

EXCLUSIVE DISTRIBUTORS . SALES AND SERVICE

O Pioneers in hinders equipment since 1898

...tested practically all static eliminators ...



After testing practically all types of static eliminators, men who have seen what static electricity can do to press production RECOM-MEND the HERBERT OXY NEUTRALIZER BAR as the BEST solution.

*"We have tested practically all of the various types of static eliminators, not only in our own factory but also while working with various customers in their factories, and we have no hesitation in stating that the Oxy Neutralizer Bar is the most efficient static eliminator with which we have had any experience. Therefore, we are recommending your equipment wherever we encounter static problems."

If affset, smear, excessive downtime are robbing your plant of its rightful profits, CHECK FOR STATIC ELECTRICITY.

You will find with the OXY NEUTRALIZER BAR you can rid as many as 10 presses of static electricity for less than 5c a day . . . and increase your production as much as 50%.

FOR COMPLETE INFORMATION AND PRICE LISTS, WRITE DEPT. C-1

* Excerpts from letters of present users of OXY NEUTRALIZAR BARS are on file for your inspection at any time.



Products Inc. WOODHAVEN 21, N. Y.

work and with the eye at the eye-lens the instrument is slowly rocked back and forth until a sharp image is seen. The microscope is then held in that position.

Fig. III #1 is a standard size laboratory microscope with powers of 50 to 1000 times, in steps. For every job in the industry which needs a microscope this instrument can be called upon to give the final correct answer. Its workings would be the subject of many pages and cannot be taken up at this time.

While not properly belonging with the magnifying lenses there is another group of lenses called reducing or negative lenses which find a place and use in the litho shop. When a large piece of copy is to be reduced and you wish to see just how it will bol when so reduced, a small reducing lens held in front of the eye while looking at the copy will show this. A large diameter lens of this type will give only a small reduction in size while a smaller reducer will give greater reduction of the copy. Both lenses will however cover about the same area of copy.**

LABOR RELATIONS

(Continued from page 43)

ing of these clauses by proposing that the union and the employers mutually agree that employees will not be required to execute work received from or destined to any lithographic concern or lithographic plant with whom the union has a dispute, in contrast to previous wording reading: "In the event the company requests its employees to execute work received from or destined to any lithographic employer or lithographic plant with whom the union has a dispute" or "the union reserves to itself and its members the right to refuse to execute such work." The union has also proposed that employees will not be required to execute work received from or destined to any lithographic concern or lithographic plant with whom the union has a dispute whether by direct or indirect methods,

Further, the proposal was made "that the union reserve to itself and

its members the right to refuse to execute any work in any plant hereunder in the event that any local of the Amalgamated Lithographers of America is then engaged in a strike or a lockout of another plant of the same concern, which strike or lockout has been in continuous existence for at least thirty days." To agree to such a principle indeed places the union in an extremely advantageous position if and when it desires to exercise maximum economic pressure to gain its objectives during collective bargaining. In reality, or from a practical point of view, agreeing to such wording may be interpreted as being the first step to bargaining on a company-wide rather than an individual plant basis. As of this reporting, such wording has been successfully resisted in most areas. Employers have done so on advice of local counsel that such wording could result in a charge of collusion in restraint of trade.

Contract Periods

During the period which this report covers, contract negotiations in

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comparison with periods were extended over a rather lengthy period of time, lasting in some instances as long as seven months before agreement was reached. The only strike of any considerable import occurred in Pittsburgh after some seven months of negotiations. The strike started on April 12, 1950 and was settled on May 2, 1950. During the New York negotiations, employers experienced for the first time the application of an old method of economic pressure in the form of a slowdown, which, for certain employers, resulted in serious and costly production problems.

In summary of this review of contract negotiations, covering the period from August 1949 to August 1950, one significant conclusion that can be drawn is that from the standpoint of the over-all costs of settlements reached, the trend during the years subsequent to August 1945 was reversed. It will be remembered that during the 1947-1948 negotiations the pattern of wage settlements was \$6.00 and \$8.00 increases with the breakingpoint in the scale at \$60. During the the 1948-1949 negotiations, the pattern of wage settlements was \$3.00 and \$5,00 increases with the breakingpoint at \$60. It is also to be remembered that there occurred during this pre-1949 period the reduction of the work week from 40 to 361/4 hours, increased overtime premiums, increased night shift differentials, the establishment of vacation benefits and paid holidays when not worked, and added costs to finance health and welfare plans. This is substantiated by the fact that a recent survey shows that during the period of from 1940. to 1945, vacation and holiday benefits were indeed few and far between. In the few instances in which vacation benefits were in existence prior to 1945 they generally called for one week's vacation after one year of service. It was not until after 1945, particularly in the years 1946 and 1947., that the prevailing practice of two weeks' vacation after one year came into existence. Similarly, paid holidays when not worked were few and far between during the period from 1940 to 1945. While overtime premiums apparently were in existence during 1940, it was not until after 1945 that the present overtime premiums were negotiated. The break in the 40-hour work week calling for shorter hours first occurred in the industry in 1946.

A study of bargaining during recent months indicates that in negotiations for the remainder of 1950 and in those which will occur in 1951, wage increases will be the major bargaining issue. Increased cost of living and improvement in the standard of living will be the union's big talking points. We shall comment on this later.

Having referred to contract negotiations which will take place during the remainder of 1950, let us look at the schedule of contract negotiations which will take place in 1951 and 1952:

195

											Termination Date January 31
Los Angei	400										February 1
											Pensions Only
Minneapoli	is-	300	-6	it.	Ĭ	'n	110	3			. February 1
											Wagee Only
Boston											February 28
Grand Ray	pi	d	0								April 1
Rochester											April 30
Cleveland											April 30
Pittsburgh											May 1
Providence											May 14

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Buffalo		September	30
Ashland		September	80
Oklahoma City		September	30
San Francisco	Oc	tober 22 eember 31*	
Note: Reopening Cost of Living Inde			
10% above or below : 15, 1950.	the Index	figure for	Feb.

1952

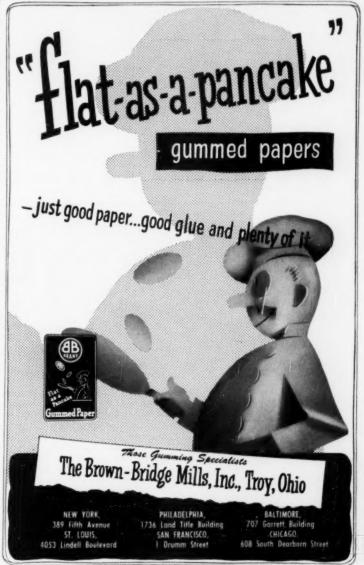
Scattle											January 1
Los An	gele	6									February
Minnes	polis	-	-8	2	P	a	u	1			March 31
New Y	ork										April 30
Chicago											April 30
C neinn	ati										April 30
Detroit											April 30
											April 30
Baltimo											

A review of this schedule of contract termination dates shows that the recently negotiated longer term contracts provide a wider spread of collective bargaining from a standpoint of time than in previous years. This is to say that in several of the larger lithographic areas, particularly New York, Chicago, Cincinnati, Detroit and Kansas City, contract negotiations in these areas are not scheduled until 1952. This being the situation, the question naturally arises whether or not the Amalgamated will follow the policy of other unions in requesting wage talks regardless of when contracts expire or reopen. The position which the employers in our industry should take if confronted with such a proposal is obvious. This is particularly so when taking into consideration the results in terms of gains made by the union since 1945. As of this reporting, and as of previous reporting, benefits occuring to lithographic workers in terms of the several traditional conditions of employment are equal to or better than similar conditions of employment in other industries. This fact has been pointed out on several previous oc-

The union for the most part will attempt to justify demands for an increase in wages on the basis of the recent increase in the cost of living, and an improvement in the standard of living. In this connection, the average hourly rate in 1939 for 2,756 lithographic employees in 18 basic job classifications was \$1.12. Computations made from 1950 Roster Reports which have been received as of this reporting show that the average hourly rate for 3,035 employees in the same 18 basic job classifications is \$2.29, an increase of 113.9%. In

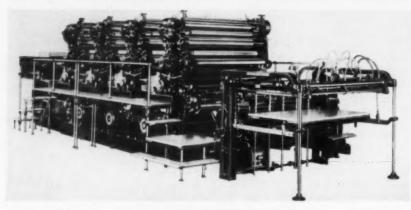
computing the 1950 average we used the roster reports of the same companies from which the 1939 average was derived. The July 1950 Consumers' Price Index for Moderate-Income Families for Large Cities Combined stands at 172.5, or 72.5% above the 1935-1939 base of 100.

Preliminary estimates indicate that the Cost-of-Living Index figure now stands at approximately 174. In other words, had an automatic costof-living plan been in effect during the last ten-year period, the increase in the average hourly rates just referred to would have amounted to approximately only 70% instead of the 113.9%. Obviously, some allowance must be made for increases based upon merit and length of service. Therefore, even if the cost of living index does rise to 74% or higher during the next few weeks or months, there still remains a fine cushion to offset



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AND DIE-STAMPING INKS 215 So. Aberdeen Street, CHICAGO 7, ILL. any increase in cost-of-living. There is also to be considered the fact that during this ten-year period the increase in vacation and holiday benefits, health and welfare plans, and other conditions of employment, all of which have contributed to an increase in the cost of doing business, have reached a point, the level of which should be of concern not only to employers but to employees as well. Also, serious consideration must be given to such factors as increased competition, diminishing profit margins, increased rates of taxation and higher cost of machinery, materials and supplies.

Litho Industry High

Recently we have made a study of hours and gross earnings of production workers in 18 basic manufacturing industries as reported by the Bureau of Labor Statistics, United States Department of Labor. These statistics are reported in terms of average weekly and hourly earnings and average weekly hours. In June 1942, the first month in which Lithographing was reported as a separate category of the Printing and Publishing Industry, average hourly earnings in the lithographic industry ranked ninth from the top. In June 1945 and May 1950, the lithographic industry ranked seventh and third, respectively. Thus in 1950, average hourly earnings in the lithographic industry were exceeded only by Newspapers and Periodicals which ranked first and second.

More significant are the percentage increases in average hourly earnings. The percentage increase of average hourly earnings for May 1950 over June 1942 in the lithographic industry was 98.2%. This percentage increase was exceeded in only two other industries. Taking into consideration the percentage increase in average hourly earnings for May 1950 over those of June 1945, the percentage increase for the lithographic industry was 63.8%, exceeded only by the Printing and Publishing Industry as a whole which was 66,7%. In this same period the percentage increase in average hourly earnings for all manufacturing was only 38.9%. as against the 63.8% for the lithographic industry. The average weekly earnings for all manufacturing for May 1950 was \$57.72, against \$71.91 for workers in the lithographic industry, or a differential of \$14.19. Giving due consideration to these facts (even when allowing for change in methods of calculations), as well as the increase in wage rates as against the percentage increases in the Cost-of-Living Index during the last tenyear period, it would still seem there is no sound justification for wage

increases at this time. Comparing other conditions of employment with other segments of our basic industries, the same would hold true for vacations, holidays, overtime premiums, health and welfare benefits and shift differentials. The balanced best interests of customers, employees, employers and stockholders should be the first consideration.

Summary

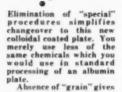
During the period from August 1949 to August 1950, I think there





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is positive evidence to conclude firstly that over-all costs of contract settlements were appreciably less than the over-all costs of contract settlement made during similar periods of negotiation since the latter of 1945. Secondly, I believe there is convincing evidence to substantiate the fact that with respect to conditions of employment, lithographic workers as of today are in an enviable position compared with workers in other segments of American manufacturing industries. Union officials on more than one occasion have agreed with this fact. And thirdly, that with respect to current union proposals there is no sound economic justification for increased wages and other factors affecting labor costs of doing business.

Recommendations

On previous occasions such as this and at other times, we have made certain suggestions and recommendations as means to a possible solution to some of our labor relations problems. Briefly, these suggestions and recommendations are as follows:

- That management should consider labor relations from a functional point of view equal in importance to other functional responsibilities, such as sales and accounting;
- That ways and means be found not only to develop, promote and maintain employer-employee relations, but also to develop ways and

- means to promote better understanding in employer-union relations, particularly with respect to recognized common problems;
- 3. That, as to employer-employee and employer-union relations, there is a need for an educational program (particularly at the plant level) to provide all those concerned with economic facts of business and to show that employees' security is dependent upon the security of the company for whom they work and that any increased cost as a result of collective bargaining or otherwise can come only from increased productivity on the one hand and the reduction of operating cost on the other;
- 4. That employer representatives responsible for collective bargaining should know, understand and exercise their rights and insist upon the exclusion from or elimination of unsound, detrimental contract provisions;
- That employer-employee relations as well as employer-union relations should be based upon the application of sound human relation practices, particularly on a dayto-day basis; and
- 6. That management in the lithographic industry in achieving those desired objectives have two very important advantages: one, for the most part lithographic plants are small and thus afford

an opportunity for direct and intimate contact and communication between management and personnel; and, two, conditions of employment in the lithographic industry for the most part have reached a high level of excellence, a fact which should be given the publicity it deserves.

SIMPLIFYING WORK

(Continued from Page 38)

offered them as an idea some friends of his had told him about. Often he would go on to express doubts about whether the idea would work. Usually that made the listener eager to convince him that the proposed idea was good. Out of these indirect and improved ways of selling methodsengineering Morgensen developed the philosophy back of work simplification. That is, let better methods be developed by the man on the job, rather than by the outside expert.

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In 1948 the Cleveland chapter of the Society for Advancement of Management conducted a nine meeting course in work simplification. The leaders of the course were graduates of Morgensen's six weeks intensive course, which he conducts at Lake Placid, New York.

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LITHO ENGINEERING & RESEARCH

and myself. We learned the five step pattern for improving work methods. This is also the outline used for the job methods courses in the Training-Within-Industry program that the government sponsored in the last war. We saw lots of movies of job operations. We saw how the job was done before, and how the job was done after work simplification had been applied. In analvzing a job we learned to "why" every operation. After seeing movies of such a wide variety of jobs, in so many different industries, our foremen came to realize that even in lithography, and even in their own department there might be a better way of doing work. We learned one of the basic slogans of work simplification, which is "There is always a better way."

But most important of all, we learned that work simplification is not a "package deal." You can't just pick up one of these manuals such as have been published by Factory magazine, Kent Lane, Procter & Gamble, or Marshall Field, and start a program in your shop that will last and grow.

First you must develop a management philosophy and establish management policies to answer questions such as the following:

1. What's in it for me? With the average employee this will probably be the first question. If your employee is already bursting with good ideas the money reward angle will probably be second or third on the list. Some plants pay a certain percentage of the first year's savings resulting from the new method. At Copifyer we have a profit-sharing plan. We pay a share of profits in addition to prevailing union wages.

You should give credit where credit is due. Don't overlook the value to the employee of "recognition"—a pat on the back for a good idea. It you give an employee a chance to feel that he is participating in the operation of your company you increase his job satisfaction. When you increase an employee's job satisfaction, you increase his ability, and his desire to produce.

2. How about job security? asks the union. Too often in the past management has encouraged employees to increase their productivity. Then when employees developed more efficient methods, the piece rate was cut—or employees were laid off. Unions are always worried about their members working themselves out of a job. Our lithographic union contract clause prohibiting piece work is a reminder of bad management practice in the past.

If you lay people off after work simplification improvements, then your program stops right there. Lovalty works both ways. Under a proper work simplification program, even though you don't need as many employees as before the job was improved, you still don't fire any of them. You keep them on the payroll. Some you can retrain and transfer to other jobs. As employees leave your employ, due to normal turnover, or marriage, or death, you just don't replace them. Of course, with the strong industrial growth that we have in lithography, when business is good, you can usually increase your sales volume to provide additional work.

Work simplification helps to show your employees that their jobs are dependent on a continual whittling down of production costs. That is the basis of our free enterprise system. Since no company has a monopoly in lithography, you have to improve in order to survive in business. As a worker the only way you can increase your standard of living is to increase your productivity. If you just increase wages, then prices go up too, and you are no better off. But your employee must have definite assurance from management that he won't be fired if he does increase his productiv-

3. Will it work in a lithographic plant? asks management. In addition to selling the employee and the union, you have to sell management. Many of you in this audience are probably saying to yourselves "The human relations approach sounds interesting, but the rest of work simplification sounds just like efficiency en-

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ESTABLISHED 1918

FOLD - BAND - PACK BEFORE AFTER FOI D FOLD ELECTRIC COUNT READY TO SHIP PACK IN CARTONS

CHART 7

BEFORE: FOLD-BAND-PACK Small

1. Wait for folder electric counter to register

2. Take off counted pile from folder stacker.

3. Paper band or tie.

5. Move skid to shipping department. 6. Shipping department packs into cartons

Problem: How to reduce the double handling of material, without losing the accurate count of each bundle.

Operator was supplied with a sensitive balance scale with two right angle pans. Bundles were counted by weight

Cartons were supplied at the folding machine AFTER: 1. Take folders off stacker

2. Weigh on scales against hand counted stack

4. Load directly into cartons

5. Seal cartons

6 Move skid to shipping department ready to

Comment: Double handling of material was eliminated when the operator no longer had to "wait" for the correct number on the electric counter to appear. The folder counter was used to check the total count on the

gineering to me. We've had our belly full of efficiency experts. That's all right for auto manufacturing and mass production, but it won't work in lithography - not in my plant.' That's the same reaction our foremen had. I am sure, before they took the work simplification course-"it won't work in my department." Even after taking the course our best suggestions for improvement came from the foreman in another department. That same foreman is inclined to be blind to improvements that he can make in his own department. That's only human nature.

How about you? When you visit your competitor's plant don't you find a lot more things to improve than you do when you walk through your own shop? Another slogan of work simplification runs as follows: "The mind is like a parachute, it functions only when it's open."

A number of printing plants are cenducting work simplification programs: Standard Register and Reynolds and Reynolds in Dayton; Sunsett-McKee on the west coast; Western Printing & Lithographing at Racine and Summerville of Canada.

Our program at Copifyer is a modest one. We have about 100 employees. We make our own plates and operate our own bindery. Some departments, like the bindery, offer bigger opportunity to simplify workbecause there are so many hand oper-

However, on the accompanying charts we have purposely picked improvements made by our employees in six different departments: camera, plate, press, bindery, shipping and maintenance. Wherever work is done there is a better way. Any department of any lithographic plant can produce more work with less effort through work simplification.

(Next month more of these charts will be published, covering simplified methods in packing, shipping and maintenance .-Editor) **



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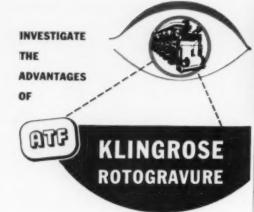
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FOREMAN: Two color offset pressman, Experienced shop foreman, 22 years' perience on color process work. A-1 color matching. Desire change with progressive concern. Metropolitan area preferred. Address Bux No. 629, c o Modern Lithog-

OFFSET CAMERAMAN, plate maker (albumin and deep etch). Desires posi-tion with progressive firm in the east. Address Box No. 630, c/o Modern Lithography.

EXPERIENCED FOREMAN capable cameraman, stripper and platemaker with over 20 years experience in trade is inter ested in connection with medium-sized progressive concern. Will consider any location for right opportunity. Address Box. No. 631, c/o Modern Lithography.

COLOR LITHOGRAPHY. Resourceful executive, exceptional background, conversant all phases color offset manufacture. Potential manager or assistant. Proficient business administrator, estimator, production man. Alert to sales and costs. Agreeable to leave New York City. Address Box No. 632, c/o Modern Lithography.

OFFSET PHOTOGRAPHER, STRIP-PER AND PLATE MAKER. Line, tone, and color register work. Prefer Southern California, Texas, Miami or vi-cinity. Address Box. No. 633, c/o Modern Lithography.

OFFSET PRESSMAN, experienced in top quality color and process work. Capable of supervising pressmen. Prefers smaller plant, expects premium wages with steady employment. Looking for a with steady employment. Looking for a permanent situation with a square deal for entire personnel. Can furnish excellent references, fulfill all requirements. Address Box No. 634, c/o Modern Lithography. Lithography.

OFFSET SUPERINTENDENT: Now employed. 15 years' broad experience offset field including supervision of production, plant management, research, sales and purchasing. Bs degree. Wants responsible position progressive company. Address Box No. 635, c/o Modern Lithography.

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Miscellaneous:

WANTED TO BUY: Harris L.S.B. 17x22 Offset Press. Serial number must be 500 or higher. AC controls preferred. The McBee Company, Athens, Ohio.

(Turn the page, please)

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WANTED TO BUY: 14x20 Webendorfer offset press. Starting in business. Older model preferred: however, press must be in good usable condition. Private party-will pay cash. Send full details with motor specifications. Address Box. No. 636, c/o Modern Lithography.

OFFSET PRESS WANTED: 22 x 34 Harris with high pile delivery. Must be in perfect condition. State price. Universal Printing & Lithograph Co., 1117 Santee Street, Los Angeles 15, Calif.

For Sale:

OFFSET PRESS FOR SALE: Latest model 17½ x 22½ Webendorfer. Like new —only two years old. Perfect mechanical condition. Can be seen running. Universal Printing & Lithograph Co., 1117 Santee Street, Los Angeles, Calif.

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FOR SALE: ATF Chief Offset 17½ x 22½ — 2 years old, used very little price \$\$950.00. Joe McConnaughey, Jr., 220 Luckie Street, Atlanta 3, Georgia.

FOR SALE: New and metal vacuum printing frame and whirler for 17x22 plate \$464; 22x14" plate \$725. Singer Engineering Company complete plate making equipment, 248 Mulberry Street, New York City.

FOR SALE: 44x64" Harris two color Model LT offset press. Automatically fed. Extension delivery. Must sell quickly. Will accept first reasonable offer. Craftsmen Finance, 27th & Payne Ave., Cleveland. Ohio.

EQUIPMENT FOR SALE: One Southworth paper conditioning unit complete with hangers, alternating current blower motor, and grey enameled panels, capacity 38x50 sheet. Excellent buy, write Moebius Printing Company, 300 North Jefferson Street, Milwaukee, Wisconsin.

FOR SALE: Vandercook Flatbed No. 2233 Offset Proof Press converted for metal production. Capacity 35" x 221;" sheet. Excellent condition, wired for 220 v 60 cycle 3 phase; located in New York area, may be seen in operation. Address Box No. 6:8, c/o Modern Lithography.

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Purchases Continental Lifho

Continental Lithograph Corp., Cleveland poster specialist, recently was purchased by National Screen Service, New York, it was learned early in November. National Screen Service also is the parent firm of Litho Poster Co. of America (formerly Tooker Litho Co.), New York; and National Folding Box Co., New Haven, Conn.

Join Buffalo Craftsmen

G. H. Panfel of Frank B. Hoole Stationery Co. and Kenneth A. Schaeffer of Niagara Lithograph Co. recently joined the Buffalo Club of Printing House Craftsmen.

F9 Voightlander Apo Skopar \$385.00, 41° F10 Carl Zeiss Apo Planar \$1395.00. Again Available: complete line of world's finest process lenses. Taylor-Hobson-Cooke, Series IX Apochromanic 13—88 inch focal lengths. We have the lens you want. Write today for complete lens list, details, or information. Send this ad to Burke & James Inc. 321 So. Wabash Ave., Chicago 4, Illinois. Att: M. L. James.

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New N.C. Concern Organized

Deluxe Printing and Lithographing Co., Hickory, N.C., has been organized as a printing and publishing business. W. L. Goodson, president of the new concern, has had experience in the production, management and sales end of printing and lithography for over 27 years.

James H. Burrus, secretary-treasurer, has had 25 years experience in the art and designing field.

Thomas Troy Barkley, productionpersonnel, has been associated with printing production for the past 14 years.

John W. Burrus, executive vice president, will act only in an advisory capacity to the company. He has been connected with the Bureau of Internal Revenue as assistant chief council.

Mass. Co. Opens Branches

Murray Printing Co., Wakefield, Mass., recently opened sales offices at 40 E. 40 St., New York, and 1640 Connecticut Ave., Washington, D. C. Recent expansion of the company's offset facilities included the addition of the Mann perfecting offset press which was displayed by ATF at the Chicago Graphic Arts Exposition.

N. Y. Firm Bankrupt

An order confirming the arrangement of Parish Press, New York, under the bankruptcy laws, was signed October 17. A settlement to creditors of 20 percent was arranged, with five percent cash immediately, and three notes for future payments of five percent each.

Sullivan Joins Quaker

Hammond Sullivan, formerly of Woodrow Press, New York, recently joined Quaker Press Litho Corp., that city, as plant superintendent. Mr. Sullivan is secretary of the New York Litho Club.

New Louisiana Concern

George Semple has announced the opening of a new printing plant, Semple Printing Company at 721 Second street, Alexandria, La., which will specialize in letterpress and offset printing.

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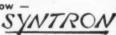
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Chicago Graphiles Study Offset

Dan Ossman, estimator with John Dickinson Schneider, Chicago combination plant, led the discussion at the Oct. 4 meeting of the Graphiles of Chicago, his subject being offset estimating and planning. A half hour of discussion followed his outline of the three fundamental factors embraced by this job.

Newest among Chicago graphic art organizations, the Graphiles was created last May to provide a forum in which front office junior executives may exchange experiences and engage in intimate personalized discussion of mutual problems.

Bert Bassett of the sales research department, Miehle Printing Press & Mfg. Co., is president and Bert Nelson, accountant with the National Provisioner, is secretary-treasurer. Meetings are held on the first Wednesday of each month at the Electric Club.

N. Y. Guild at Asbury Pk.

The third "winter annual" of the Printers Supply Salesmen's Guild of New York, was to be held November 4 at Asbury Park, N. J. The program was to include luncheon, golf, indoor swimming, bowling and other sports, a cocktail party and a dinnerdance.

Southern School Issues Booklet

A booklet outlining courses of study in the graphic arts was issued last month by the Southern School of Printing, 1514 South St., Nash-

Seek Specimens for Smithsonian

The LNA Smithsonian Committee is completing the final details of assembling material for the permanent exhibit of lithography at the Smithsonian Institution, Washington, D. C. In addition to the expanded historical exhibit, a new technical exhibit will show the advent and development of the offset process, including all the steps from the original art work and paste-up to the color plates and the reproduction. The committee is headed by W. M. Winship of Brett Lithographing Co.

Early this year the committee sent out an announcement to all lithographic establishments and allied suppliers requesting three types of specimens: historical lithographs (prior to 1906), early offset specimens, and fine contemporary offset specimens. Many have been sent in for selection by the Smithsonian's Graphic Arts Division. Still needed. Mr. Winship states, are early offset specimens of historical significance illustrating early developments in the offset process, such as early offset color work and process color, examples of work by transfer, by submarine process, etc.

The committee is requesting that all firms and individuals who may have such specimens search their old material, and send the actual specimen with details, or a description with details, to the LNA Smithsonian Committee, c/o Lithographers National Association, 420 Lexington Avenue, New York 17, N. Y. Credit to the donor is included on the descriptive label shown with material on permanent display.

TECHNICAL BRIEFS

(Continued from Page 52)

is in rolling contact with a sheet wrapped about the first mentioned cylinder throughout only a portion of the movement of the cylinders through their respective paths for transferring the inked impression to the sheet, and a flat bed device positioned to be rollingly contacted by the second cylinder while the latter is out of con-tact with the first mentioned cylinder for producing the inked impression on the econd cylinder.

*Color control in lithographic printing. Louis Pollner. Modern Lithography 18, No. 8, August, 1950, Pages 44-7 (4 pages). A paper presented at the second pages). A paper presented at the second annual TALI meeting April 25, 1950, in Rochester N. Y. An account of the color control in lithography project carried out at LTF. The author includes a summary giving a comparison of some of the avail-able color measuring instruments.

. The use and care of offset lithographic blankets. E. Gurin. Litha-graphers Journal 35, No. 4, July, 1950, Pages 8-9 (2 pages). The most important item in blanket care is the selection of a good wash. It should be a petroleum solvent having a boiling range of 190° 260° F. Other important factors are dis-

*An approach to perfect register. Stanley A. Crane. Modern Lithography 18, No. 9, September, 1950, Pages 53-4 and 155 (3 pages). For truly fine color

work, too much emphasis cannot be placed on the importance of accurately placed register marks. Register marks should be about .003 inch thick, and so accurately placed that the markings on all separacorrespondence tions are in exact each other and with the marks placed on the original copy subject.

*Photo gelatine printing: Collotype. H. H. Lerner, PSA Journal Annual, 1950, Pages 617-19 (3 pages). The introduction of the direct rotary press in the U. S. A. has made European collotype obsolete. The U. S. process also possesses the following further advantages: 1. The cal coater which yields more uniform plate-coatings. 2. Water purifying systems such as ionic exchangers. 3. The superior-ity of American gelatine. 4. Precision at-mospheric control such as air-conditioning and humidity regulators. 5. Improved printing inks. 6. Research and advances in photographic techniques such as masking methods and superior photographic materials and equipment of great variety to suit every job. Printing No. 7, July, 1950, Page 342 Printing Abstracts 5,

*Air conditioning: Part 8. Modern Lithography 18, No. 7, July, 1950, Pages 43-5 and 97 (4 pages). A description of A description of the calculations and assumptions upon which design of the air-conditioning system is based. The design day and plant are typical of the New York area. **

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LEGAL NOTICE

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Florida Firms Add Presses

Two Florida firms recently added offset presses. Ambrose the Printer, Jacksonville installed a Harris 22 x 34", and the Mail Rite Advertising Co., Miami, added a Harris 17 x 22".

"DRUPA" to Hold Exposition

"DRUPA"-International Exposition of Printing and Paper will be held in Dusseldorf, Germany, from May 26 to June 10, 1951.

Hoen Adds Two-Color

A two-color Harris 42 x 58" offset press recently was installed by A. Hoen & Co., Baltimore.

Trade Events

Point-of-Purchase Advertising Institute. annual symposium and exhibit.
Waldorf-Astoria Hotel, New York.
April 3 and 4, 1951.
National Packaging Exposition, American Management Assn., Atlantic City,
N. J., April 17-20, 1951.

Technical Assn. of the Lithographic Industry, annual meeting, Deshler-Wal-lick Hotel, Columbus, Ohio, May 7, 8, 1951.

Natl. Assn. of Litho Clubs, annual convention, Hotel Cleveland, Cleveland, Ohio, May 11, 12, 1951.

Litho Schools

CHICAGO Chicago Lithographic Institute, Glessner House, 1800 S. Prairie Ave., Chicago 16, III. NEW YORK-New York Trade School, Lithographic Department, 312 East 67 St., New York, N. Y. ST. LOUIS—David Ranken, Jr. School of Mechanical Trades, 4431 Finney St. St. Louis 8, Mo. MINNEAPOLIS—Dunwoody Industrial Institute, 818 Wayzata Blvd., Minneapolis 3, Minn. MAZAZA BYW., moneopous, 5 min., ROCHESTER—Rochester Institute of Technology, Dept. of Publishing & Printing, 65 Plymouth Ave., South, Rochester 8, N. Y.
PITTSBURGH—Carnegie Institute of Technology, Dept. of Printing Administration, Pittsburgh.

PHILADELPHIA—Printing Institute, 1337 N. Broad St., Philadelphia.

WEST VIRGINIA-W. Va. Institute of Technology, Montgomery, W. Va.

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ADVERTISERS

NOVEMBER, 1950

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(The Advertisers' Index has been carefully checked but no responsibility can be assumed for errors or omissions.)



"Maybe it did cost a lot of dough, - but it sure makes me feel important!"

Ego...or sales?

S HOULD industrial advertising be aimed to satisfy the ego of the advertiser or his agency,—or should it be aimed specifically at the markets where the advertiser's goods are sold or can be sold? Sounds like a silly question, but actually it's very apt in the light of a lot of misdirected industrial advertising today. Why advertise industrial products in the big-name general mags where only a minute fraction of the costly circulations can be even remotely effective? Only advertising double-talk can answer this one.

But, the problem is really simple. Advertise to those you do sell, can sell, and want to sell. If, for example, you want to sell the field of Lithography, the magazine which blankets this market at low cost and without waste happens to be

MODERN LITHOGRAPHY

254 WEST 31st STREET

NEW YORK 1

Member, Audit Bureau of Circulations

Tale Ends

AT the Washington NAPL convention, yellow bow ties came into their own. George Thompson and Charlies Spiro, Litho Chemical & Supply Co. were busy in their suite, de-tieing guests and substituting the flashy yellow creations. The whole thing reached a climax when Rudy Vallee, crooning in the Shoreham's Blue Room, crooned in a yellow tie.

Howard Colehower showed up in another special tie—with a Jomac roller washer advertisement on it.

In the EBCo suite a continuous Washington press conference was in session, complete with photographers, Indians, Senators, and even a life-sized cut-out photo of President Truman, posing with all comers. His extended hand could be interpreted either as ready to shake hands or as the symbol of the hand-out state.

Some low-down Indian stole the feathered headdress before the convention ended,

At the S & V suite magicians Joe and Bill Downing kept visitors perplexed by guessing serial numbers on dollar bills. Roberts & Porter souvenired little combination screwdriver, punch, hammers with the line "Hammer Down Costs." Lou Tamb arranged for die-cut golden keys handed out to invite guests to the F & L room. Many other suppliers held open house and were hosts to convention attendants during the four days.

The monkey business at the Ideal Roller exhibit consisted of four monkeys whose antics vied for attention with other exhibits showing litho products. Someone snatched a sign and hung it on the cage, "Lithographic Research Committee.

At presstime no dates or locales had been set for 1951 conventions of either the NAPL or LNA.**

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HARRIS MODEL 122A (LTV) Single-Color 17 x 22" Offset Press

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Take a look at the third in a worldfamous line of small offset presses. Your money's safe on this favorite.

Its granddaddy, the Harris LSB, was earning big money for its owners even in the tough competition of depression days.

Its father too, the Harris LTG, has been the foundation for many a business. The military model also did duty for the armed services on every continent.

Now comes a press that will outperform them both in quality of print . . . saleable sheets per day . . . operating convenience. Particularly, it has the features which press owners and operators have asked for in a small offset press.

Today's race is too rugged for any but the top performers. That's why it takes a new Harris to stay out in front.

Ask us to prove how this 17 x 22 can increase your production.

HARRIS-SEYBOLD

GENERAL OFFICES, DEPT. K, CLEVELAND 5, OHIO

